



DEPARTMENT OF THE NAVY

U.S. NAVAL SUPPORT ACTIVITY
PSC 817 BOX 1
FPO AE 09622-0001

NAVSUPPACTNAPLESINST 4101.1D

N4

9 MAR 2018

NAVSUPPACT NAPLES INSTRUCTION 4101.1D

From: Commanding Officer, U.S. Naval Support Activity, Naples, Italy

Subj: ENERGY AND WATER MANAGEMENT PROGRAM

Ref: (a) E. O. 13693
(b) OPNAVINST 4100.5E
(c) COMNAVREGEURINST 4100.1A

Encl: (1) Energy Conservation Program Manager Appointment Memorandum Form
(2) Command/NAVSUPPACT Naples Department Energy Monitor Notice Form
(3) Energy and Water Management Program for NAVSUPPACT Naples, Italy

1. Purpose. To provide goals, objectives, and responsibilities for the management and conservation of energy and water at U.S. Naval Support Activity (NAVSUPPACT), Naples, Italy and tenant commands. This instruction represents a major revision and should be read in its entirety.

2. Cancellation. NAVSUPPACTNAPLESINST 4101.1C

3. Applicability. All NAVSUPPACT Naples departments and tenant commands will comply fully with energy management policies and strive for the most efficient utilization of energy resources.

4. Policy. References (a) and (b) establishes goals and guidelines in support of the Navy Energy Management Program. Reference (c) sets forth procedural guidance to be followed and action to be implemented by the operating forces, local command, and shore installations in Navy Region Europe, Africa, Southwest Asia. NAVSUPPACT Naples and tenant commands will comply fully with references (a) thru (c). Enclosure (1) provides instruction and documentation for appointment as Installation Energy Manager. Enclosure (2) provides instruction and documentation for appointment of Department or Building Energy Monitors. Enclosure (3) provides local guidance and policy that shall be used to achieve the Navy's energy management goals onboard NAVSUPPACT Naples.

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5. Objectives. The primary objective of the Energy and Water Resource Management Program is to improve all elements of energy management and water conservation and achieve Energy Reduction Targets as established by reference (a), while meeting all operational and mission requirements and supporting a high quality of life (QOL) standard.

6. Action. NAVSUPPACT Naples and tenant commands will have a visible and active commitment to energy management. Accordingly, all NAVSUPPACT Naples and tenant commands shall comply fully with enclosure (3), the Energy and Water Management Program for NAVSUPPACT Naples.

7. Records Management. Records created as a result of this instruction, regardless of media and format, must be managed per SECNAV-M 5210.1.

8. Review and Effective Date. Per OPNAVINST 5215.17A, NAVSUPPACT Naples will review this instruction annually on the anniversary of its effective date to ensure applicability, currency, and consistency with Federal, Department of Defense, Secretary of the Navy, and Navy policy and statutory authority using OPNAV 5215/40 Review of Instruction. This instruction will automatically expire five years after effective date unless reissued or canceled prior to the five year anniversary date, or an extension has been granted.



T. A. ABRAHAMSON

Releasability and distribution:

NAVSUPPACTNAPLESINST 5216.4BB

Lists: I through IV

Electronic via NAVSUPPACT Naples web site:

https://www.cnrc.navy.mil/regions/cnreurafswa/installations/nsa_naples/about/departments/administration_n1/administrative_services/instructions.html

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ENERGY CONSERVATION PROGRAM MANAGER APPOINTMENT MEMORANDUM FORM

4101

Date

From: Commanding Officer, U.S. Naval Support Activity, Naples, Italy

To: **(Name of Installation Energy Manager Designee)**

Subj: DESIGNATION AS INSTALLATION ENERGY MANAGER

Ref: (a) CNREURAFSWAINST 4100.1B
(b) NAVSUPPACTNAPLESINST 4101.1D

1. Per references (a) and (b), you are hereby designated as the Installation Energy Manager (IEM) for U.S. Naval Support Activity, Naples, Italy. You will comply with the guidelines contained in references (a) and (b).

2. As the IEM, you will represent this command as a member of the Energy Management Board as detailed in reference (b). You will coordinate this command's energy management efforts, and provided guidance and direction for our Building Energy Monitors.

T. A. ABRAHAMSON

Copy to:
PWO

Enclosure (1)

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COMMAND/NAVSUPPACT NAPLES DEPARTMENT ENERGY MONITOR NOTICE FORM

4101

Date

From: (Cognizant Commanding Officer, Officer in charge, or U.S. Naval Support Activity, Naples, Italy Department Head)

To: (Building Energy Monitor Designee)

Subj: ENERGY AND WATER MANAGEMENT AT (COMMAND/ACTIVITY/DEPARTMENT)

Ref: (a) CNREURAFSWAINST 4100.1B
(b) NAVSUPPACTNAPLESINST 4101.1D

1. (Name of Building Energy Monitor), at DSN 625/626-XXXX, and e-mail XXXXX@XXXX represents this (command/activity) in the Area Energy Management Program. The Building Energy Monitor's responsibilities include monitoring temperature and energy and water use in this area for compliance with guidelines established by references (a) and (b). Any misuse of energy should be promptly brought to the attention of the Installation Energy Manager.

2. On a continuing basis, every effort will be made to reduce energy and water consumption in this area to the minimum required while ensuring mission capabilities.

3. Saving energy and water is an all hands effort. Your participation is required to make the energy management effort a continuing success.

(Signature of Commanding Officer,
Officer in Charge, or U.S. Naval
Support Activity, Naples Department
Head)

Copy to:
NAVSUPPACT Naples Installation Energy Manager
Service record

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**ENERGY AND WATER MANAGEMENT PROGRAM
U.S. NAVAL SUPPORT ACTIVITY NAPLES, ITALY**

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1.0 Program Scope

The U.S. Naval Support Activity (NAVSUPPACT) Naples, Italy Energy and Water Resource Management Program contains two components designed to work together to minimize the life cycle cost and consumption of energy and water resources while meeting or exceeding military readiness, safety, and quality of life requirements.

a. System Upgrade and Design. The first component emphasizes the most cost effective energy and water systems for station facilities. It promotes the effective consumption of energy and water resources through the installation of appropriate technology and effective system maintenance. To achieve this goal NAVSUPPACT Naples shall:

(1) Develop energy and water savings projects and submit project documentation to request program funding.

(2) Provide local funds for low cost, high payback energy and water savings opportunities, and for new technology demonstration projects.

(3) Incorporate energy and water savings specifications into new construction and repair contracts.

(4) Incorporate energy and water savings procedures into existing facilities maintenance programs contract.

(5) Incorporate sustainable design into new construction and alteration projects.

(6) Promote energy efficient product purchases.

(7) Ensure a well-qualified, fully trained energy team is in place to carry out the requirements of this plan, to include an Installation Energy Manager, Building Energy Monitors, and an Installation Energy Board to provide oversight and progress review.

(8) Ensure that accurate energy accounting tools such as utility meters or engineering estimates and procedures are in place to establish utility baselines, set consumption goals, and monitor program performance.

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(9) The Annual Energy and Water Management Reduction Plan incorporates all of the above initiatives in order to achieve reduction targets.

b. Community Support. The second component of the program recognizes that every member of the NAVSUPPACT Naples community contributes to energy and water consumption on a daily basis. The most effective energy management program increases individual education and awareness to reduce the end-user consumption. To do this, NAVSUPPACT Naples shall:

(1) Eliminate unnecessary consumption by the end-user at work in all facilities, in living quarters, in family housing, and in commercial and recreational facilities.

(2) Educate energy end-users about the principles of energy consumption and ways to improve individual energy management practices.

(3) Add to the community's awareness of the value and environmental benefits of energy and water conservation both for the government and the individual.

2.0 Energy & Water Resource Management Goals

a. The overall goal of this plan is to efficiently and effectively manage electrical, heating oil, and water consumption at NAVSUPPACT Naples reducing the overall consumption of these resources, and meet specific Federal and Navy Policy reduction targets outlined in references (a) and (b) as specified below.

(1) Energy Reduction. 2.5% reduction per year based on Fiscal Year (FY) 2015 consumption (MBTU/KSF), 25% total reduction by FY2025.

(2) Water Reduction. 2% reduction per year based on FY2007 consumption (KGAL/KSF).

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(3) Renewable Energy (RE). The total amount of building electric energy and thermal energy shall be clean energy, accounted for by renewable electric energy and alternative energy:

(a) Not less than 10% in FY2017.

(b) Not less than 13% in FY2018 and FY2019.

(c) Not less than 16% in FY2020 and FY2021.

(d) Not less than 20% in FY2022 and FY2023.

(e) Not less than 22.5% in FY2024.

(f) Not less than 25% in FY2025 and each year thereafter. Measure: total RE (electric) production/total (electric) consumption (MBTU/MBTU).

(4) Facility Energy and Water Surveys. Annually- Perform comprehensive energy and water surveys on 25% of the total DON square footage. Measure: square footage surveyed/total square footage.

(5) Metering. Install sufficient advanced meters on individual facilities to accurately capture a minimum of 60% of electricity use and 60% of natural gas use with a goal of 85% for both electricity use and gas use by FY2020. Measure: number of facilities with meters / total number of facilities.

(6) Sustainable Design. All applicable MILCON projects will be required to incorporate LEED principles.

(7) Energy Efficient Product Purchases. Purchase Department of Energy "Energy Star" products when available. For products that are not available meeting these requirements purchase products that are energy efficient class "a" or better for the category of product required.

(8) Training. Ensure a well-qualified, fully trained energy team is in place to carry out the requirements of this plan to include energy managers, design engineers and operations personnel.

(9) Energy Efficient Leasing. Since FY2017, for new lease, no federal agency shall enter into a lease if the lease space has not earned an efficient energy label indicator (energy star, or Italian/European equivalent label) within the most recent year. For new lease solicitations over 10,000 rentable square feet, the following shall be included:

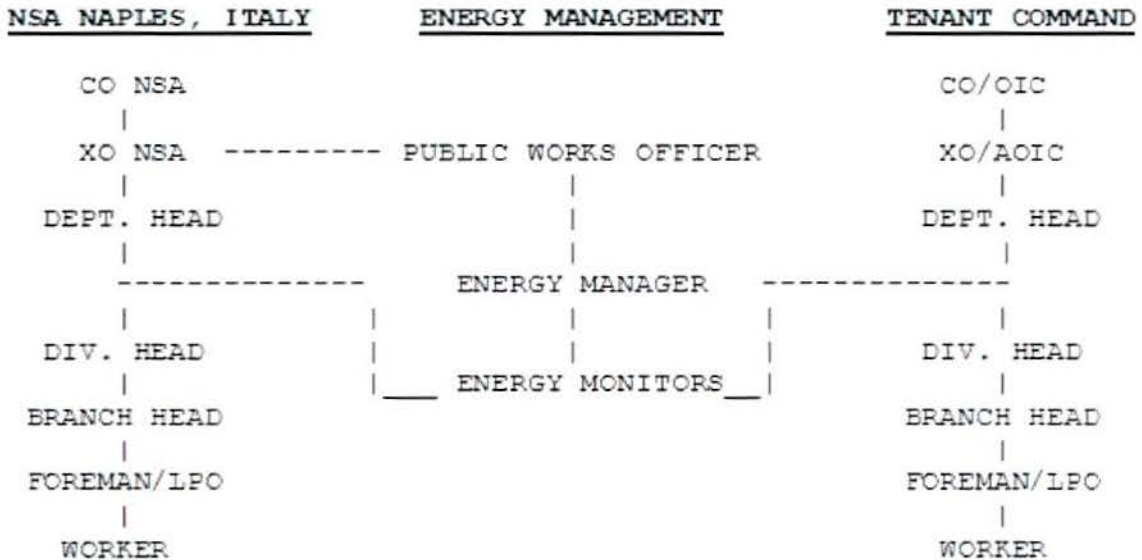
(a) Criteria for energy efficiency as a required performance specification or a source selection evaluation factor (best-value trade-off).

(b) Requirements for building lessor disclosure of energy consumption data for the building portion that is occupied by the agency, through sub-metering.

(c) Reporting building energy, beginning in FY2017.

3.0 Responsibilities and Plan Management

An effective energy management program requires a well-defined chain of command for accountability. Accordingly, the NAVSUPPACT Naples energy management chain of command will operate in accordance with the existing chain of operational authority:



3.1 Commanding Officer

- a. Establish energy policy and direct and evaluate energy management efforts.
- b. Budget and allocate resources to effectively implement and administer the Energy Management Program.
- c. Establish the energy demand management policy for shedding loads and peak shaving.
- d. Serves as Chairperson of the Installation Energy Board (IEB).

3.2 CO / OIC of Tenant and Supported Commands

- a. Command compliance with the requirements of this instruction. This includes contractors and sub-contractors under their cognizance.
- b. Budget and allocate resources in support of stated energy and water consumption goals.
- c. Designate, in writing, an individual to serve as the tenant/activity Building Energy Monitor (BEM).
- d. Serves as a member of the Installation Energy Board as designated by the ICO.

3.3 Public Works Officer

- a. Provide periodic briefing to the Commanding Officer, Department Heads, and Tenant Commanders on energy management efforts.
- b. Budget and allocate resources in support of specific energy initiatives.
- c. Appoint the NAVSUPPACT Naples Energy Manager and support the implementation of the Energy and Water Resource Management Program.
- d. Recommend the command policy for load shedding and peak shaving to the CO.

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e. Initiate load shedding and peak shaving plans as necessary to limit base electrical demand.

f. Serves as a member of the Installation Energy Board as designated by the ICO.

3.4 Installation Energy Manager

a. Coordinate the development of the Annual Energy and Water Reduction Plan required by reference (c) by 30 September annually.

b. Coordinate activity wide energy programs acting as the central point of contact and technical advisor on energy and water conservation matters for the command.

c. Review utility usage reports for the Defense Utility Energy Reporting System (DUERS) and trend utility consumption profiles and patterns.

d. Monitor the Command's overall progress towards conformance with the goals set forth in this instruction.

e. Develop viable energy conservation projects. Initiate investigations, energy surveys, and energy studies to support development of these projects.

f. Inspect buildings and utility systems periodically to ensure efficient energy and utility usage.

g. Represent NAVSUPPACT Naples and tenant commands at pertinent workshops and seminars on energy management.

h. Provide energy conservation and awareness training for the activity, including Building Energy Monitors (BEM), local national employees, management, and others.

i. Develop and coordinate the base Electrical Demand Peak Shaving and Load Shedding Plan, to be used in the event of an emergency electric load shedding requirement or to capture utility based economic incentives.

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j. Coordinate with the PAO to promote personal awareness of energy conservation and provide technical assistance for publishing energy related articles and information in all available Public Affairs outlets.

k. Promote energy awareness in the community, including the coordination and execution of the annual Energy Action Month typically held in October.

l. Assists the Chairperson of the IEB.

m. Prepares and submits an annual nomination package for the SECNAV Energy Conservation Incentive Award. Package shall be provided to PWO at least 30 days prior to the SECNAV submission date.

3.5 Public Affairs Officer. With the Installation Energy Manager, promote personal awareness and acceptance of energy and water conservation and the benefits of conservation to the Navy, community, and individual.

3.6 Facilities Engineering and Acquisition Division. Ensure that the Installation Energy manager has the opportunity to review construction contracts before award to ensure energy and water saving equipment and construction techniques have been incorporated.

3.7 Building Energy Monitors

a. Promote awareness of energy/water conservation programs and serve as the central point of contact for energy/water conservation within his/her building, command or activity.

b. Identify building or activity energy/water conservation opportunities through regular periodic inspections of building/command energy and water systems and initiate corrective actions through work requests and repair projects.

c. Monitor building energy/water consumption and policy compliance and identify and report variances to the responsible party, their chain of command, and the Energy Manager.

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d. Act as the command or activity point of contact for electric demand peak shaving and load shedding program. Maintain load shedding database and initiates load shedding activities as required.

3.8 Installation Energy Board

a. The activity Installation Energy Board (IEB) provides leadership and acts as the primary organizational structure for the implementation of command energy/water management policy. The IEB meets at least semi-annually to review energy and water usage; discuss energy and water reduction strategies; and review energy/water management policies and directives.

b. The IEB is chaired by the NAVSUPPACT Naples CO and consists of key management personnel from NAVSUPPACT Naples Departments and tenant commands.

3.9 Standards and Guidelines

a. Standards and Guidelines are set forth from Best Management Practices (BMPs). Our goal is to preserve the Navy's precious water and energy resources while improving the quality-of-life of our service members, dependents, and employees. To accomplish this, the following general guidelines and requirements shall be uniformly implemented and enforced.

4.0 Seasonal Operation of HVAC Equipment

a. Operating heating, ventilation, and air conditioning (HVAC) equipment in mild weather represents an avoidable waste of energy. During periods of mild weather it is often possible to heat or cool buildings by natural ventilation. Additionally, the overall efficiency of HVAC equipment is low during part load operation that occurs during mild weather. For these reasons guidelines have been established to minimize the energy cost of heating and cooling buildings during mild weather.

b. The CO shall make the final decision regarding operation of HVAC equipment based on type, seasonal weather conditions, availability of ventilation, and mission requirements. To minimize the energy waste of heating and/or cooling buildings during mild weather the following guidelines are provided:

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(1) Outdoor air and building ventilation should be used to the maximum extent possible during periods that building heating and cooling systems are not operational.

(2) Heating mode should be activated when the outside temperature falls below 60°F for a four hour period during normal working hours on five consecutive days, typically mid-November.

(3) Cooling mode should be activated when the outside temperature exceeds 80°F for a four hour period during normal working hours on five consecutive days, typically mid-May.

4.1 Temperature Settings of Occupied Spaces

a. Accurate temperature control is an important means of conserving energy and promoting mission capabilities. Excessively hot or cold spaces can increase energy usage while providing no benefit in occupant comfort. Similarly, poorly controlled spaces can cause a significant decrease in occupant comfort and waste energy at the same time. Effective temperature control of occupant spaces is essential to an effective energy policy and to mission requirements.

b. The guidelines found in section 4.2.1 are established for temperature control of NAVSUPPACT Naples, Italy, building spaces.

4.1.1 Administrative Spaces, Bachelor Quarters and Family Housing (where applicable)

a. The opening of windows or air-conditioning boundary doors shall not be used to regulate temperatures when the heating or cooling system is in use. An exception to this condition is allowed only if the HVAC system has failed to properly control the temperature, and then only after a trouble call is made to correct the condition.

(1) Cooling mode:

(a) Spaces requiring comfort cooling shall be maintained at temperatures no lower than 78°F (25.5°C).

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(b) During unoccupied hours, HVAC controls shall be set in order to guarantee no lower than 80.6°F (27°C) and cooling equipment shall be turned off whenever possible.

(2) Heating:

(a) Spaces requiring comfort heating shall be maintained at temperatures no greater than 68°F (20°C).

(b) During unoccupied hours, HVAC controls shall be set in order to guarantee no greater than 55°F (12.8°C). During periods of prolonged vacancy, temperature controls shall be set below 50°F (10°C) or other minimum controllable temperature.

(c) Due consideration should be given to securing heating systems during vacant periods.

(d) Heating and cooling systems shall not be run at the same time unless specifically designed to do so.

4.1.2 Shop, Warehouse, and Hangar Spaces

(1) Cooling: There shall be no space cooling of shop, warehouse or hangar spaces except for special cases in areas containing perishable goods or sensitive electronic equipment. In these cases, the minimum documented environmental requirements shall be maintained.

(2) Heating:

(a) Warehouse spaces requiring heating shall be maintained at temperatures no greater than 55°F (12.8°C). Where storage items require exceptions to these temperature limits, exceptions shall be automatically implemented on an as needed basis. Due consideration should be given to partitioning storage spaces and providing supplemental heating for storage of material requiring special temperature limits.

(b) Hangar spaces requiring heating shall be maintained at temperatures no greater than 55°F (12.8°C).

During periods of prolonged vacancy, temperature controls shall be set below 50°F (10°C) or, other minimum controllable temperature. Due consideration should be given to securing heating systems during vacant periods.

(c) Spot Cooling or Heating: Spot cooling or heating in hangars and shop spaces shall be provided only after an inspection and recommendation by the medical facility's Occupational Safety Group and approval by the Energy Manager.

4.1.3 Retail Spaces and Theaters

a. Due to the use of specialized lighting, high latent loads, and the importance of occupant comfort to the retail business and in the theater, more lenient standards are provided for these spaces.

(1) Cooling:

(a) These spaces requiring comfort cooling shall be maintained at temperatures no lower than 78°F (25.5°C).

(b) During unoccupied hours, HVAC controls shall be set no lower than 80°F (27°C) and the cooling equipment shall be turned off whenever possible.

(2) Heating:

(a) These spaces requiring comfort heating shall be maintained at temperatures no greater than 68°F (20 °C).

(b) During unoccupied hours, HVAC controls shall be set no greater than 62°F (17°C). During periods of prolonged vacancy, temperature controls shall be set below 60°F (15°C) or other minimum controllable temperature. Due consideration should be given to securing heating systems during prolonged vacant periods.

4.2 Supplemental Space Heating

a. Proper ventilation and proper design of HVAC systems should eliminate the need for supplemental personal heaters. Use of such equipment is indicative of a system operational problem that requires appropriate engineering or maintenance

attention. Space heaters shall not be used as a source of heat without the consent of Installation Energy Manager and proper permit from NAVSUPPACT Fire Department. Consent is required only for individually controlled, supplemental heaters in NAVSUPPACT Naples, Italy working spaces.

4.3 Ductless Split Unit Air Conditioners

a. General Rule: Ductless split unit Air Condition (A/C) shall not be used at any new facility or permanent building.

b. Exceptions: Exceptions to the above rule may be necessary:

(1) For mission requirements and certain specialized circumstances.

(2) As a short term measure only for temporary or re-locatable facilities.

(3) The Public Works Officer (PWO) will grant exceptions upon sufficient written justification and with concurrent technical review by the PWD.

c. Requirements: Ductless split unit A/Cs shall require an engineering evaluation in order to determine the applicable load and required sizing. Likewise, before a unit will be authorized, the facility will be confirmed to have adequate thermal insulation.

d. Operation

(1) Ductless split unit A/Cs shall only be operated during normal working hours or other periods where the facility or room is occupied.

(2) Ductless split unit A/Cs shall only be operated when indoor air temperatures exceed 78°F and use of outside ventilation is not sufficient to provide lower indoor air temperatures.

e. Action. Beginning immediately:

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(1) All new ductless split AC and heat pump systems will be installed with an occupancy control incorporated into the control of the system (hard wired such that disabling the control will disable the unit).

(2) All currently installed systems will have an occupancy control installed within 12 months of the issue of this instruction. The occupancy control will either control the system based on occupancy per the requirements of this instruction or turn the system off when the conditioned space is unoccupied for more than 30 minutes. The cost of this modification will be paid by the user of the system.

(3) Convert individual split units installed in Pre-Engineered Building into a combined Multi-Split VRF system with central Direct Digital Controls (DDC) control.

NOTE: Systems not modified within one year from the date of this instruction shall be removed.

4.4 ADDITIONAL HVAC USAGE REQUIREMENTS

a. During periods of prolonged vacancy, temperature controls for heating systems shall be set below 50°F (10°C) and for cooling systems above 86°F (30°C).

b. All heating systems (boilers and heat pumps) and cooling systems (chillers) shall be secured during vacant periods.

c. Heating and cooling systems shall not be run at the same time unless specifically designed to do so.

d. The opening of windows or air-conditioning boundary doors shall not be used to regulate temperatures when the heating or cooling system is in use. An exception to this condition is allowed only if the HVAC system has failed to properly control the temperature and then only after a trouble call is made to correct the condition.

e. Provide seven day programmable thermostats with lockout capability in facilities/areas where DDC are not available or applicable.

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f. Air conditioning analog thermostats for terminal units such as fan coils should be turned off during unoccupied hours. Install occupancy sensor to turn the system. Off when the conditioned space is unoccupied for more than 15 minutes.

g. Implement temperature setback for holidays and appropriate military/civilian down days.

h. Ensure that operation of all systems affecting energy and water follow the standards established by this instruction and report deficiencies, waste, and abuse.

4.5 Domestic Hot water. A significant amount of energy is used in producing and distributing domestic hot water. Experience shows that energy cost savings are obtained by maintaining hot water temperatures as low as practical. Accordingly, non-residential maximum temperatures will be set to 105°F (40.6°C) at point of delivery, and residential maximum temperatures will be set to 120°F (48.9°C).

4.6 Data Processing Equipment

a. Many decisions made when designing or purchasing microcomputer systems can have major impacts on energy usage. All acquisitions of microcomputers, including personal computers, monitors, and printers, must follow ASHRAE "Thermal Guidelines for Data Processing Environments". Buildings that are covered under these requirements are NCTAMS (data center), EMO, CROF (top floor), AFN (equipment areas), and all SIPRNET rooms.

(1) All data processing equipment installed at NAVSUPPACT Naples, Italy shall qualify for the EPA Energy Star Logo by meeting the EPA requirements for energy efficiency.

(2) All data processing equipment shall be turned off when not in use or after normal business hours. Exceptions are applicable for fax machines, network servers, and other equipment requiring continuous operation. Exceptions shall be approved by the IEM.

4.7 Appliances

a. Refrigerators are authorized for area use only with sizing based on number of personnel supported. Use one cubic foot per person as an average to determine size and quantity of refrigerators that are appropriate.

b. Minimize use of personal refrigerators, coffee makers, and microwaves by consolidating them into common break areas, where possible.

c. Ensure all electrical equipment and appliances (for example, monitors, fans, coffee pots) are turned off when not in current use and during non-duty hours.

4.8 Electric Motors

a. Electric motors represent a significant portion of NAVSUPPACT Naples total energy use. Advances in motor technologies over the past years have created motors with higher efficiencies. In fact, there are three classes of motors available; standard, "high efficiency", and premium. Energy efficient motors are capable of reducing the total energy consumed by process loads provided the RPM of the energy efficient motor are the same as the motor it replaces. It is the intent of this instruction to use the most efficient and most cost effective motor for a given application. A detailed engineering review will be performed and documented for all NAVSUPPACT Naples motors including motor operating hours, motor cost, motor application, and service life in support of the following guidelines:

(1) Motor nameplate efficiency shall be determined using Institute of Electrical and Electronic Engineers (IEEE) standards.

(2) Reduced voltage motor starters are required for all motors 30 HP or greater.

(3) All electrical motor replacements and all new electric motor installations shall use high efficiency or premium motors that match the original motor's RPM. Exceptions to this requirement are justified for motors operating less than

1500 hours per year or with an expected service life of less than two years. Exceptions to this requirement must be approved by the NAVSUPPACT Naples Energy Manager.

(4) Failed motors operating more than 2,000 hours per year shall be replaced with energy efficient motors and shall not be rewound. Exceptions to this policy must be authorized by the NAVSUPPACT Naples Energy Manager.

(5) Public Works Maintenance will create and maintain a Motor Data Base to track the performance and systematic replacement of old standard efficient motors.

4.9 Maintenance. NAVSUPPACT Naples has a rigorous Preventive Maintenance (PM) program with dedicated personnel. The efficient operation of mechanical and electrical machinery is directly related to how well that machinery is maintained. Therefore, proper maintenance contributes significantly to energy efficient system operation. For this reason, PM of HVAC motors, lighting, compressed air system, plumbing fixtures and water systems shall be particularly emphasized in the Preventative Maintenance Plan. Particular attention to the calibration of HVAC temperature controls, motor alignments, belt balance, outdoor air economizers, equipment filters, window and door weatherizing, and leaking plumbing fixtures will reduce wasted energy and water. The PW Maintenance Director will promote and implement maintenance practices in direct support of the Energy/Water Management Program.

4.10 Utilities Metering

a. Utility usage must be measured in order to assess conservation efforts, and to identify excessive energy and water usage. It is the intent of the energy program to provide utility metering where practical for all buildings

(1) A comprehensive utilities metering program shall be established and maintained by NAVSUPPACT Naples Public Works Department. Water, electricity, and fuel oil shall be measured, and records of facility usage shall be maintained in a

monitoring and targeting database. Meters newly installed or replaced will be connected to the NAVSUPPACT Naples Advanced Metering System (AMI).

(2) The primary components of the AMI system are advanced meters for electricity and water, a Remote Terminal Unit (RTU) to receive mechanical meter data, the Data

(3) Acquisition system and the communication systems required to provide the necessary data and logistical communications capabilities. All meters communicate back to the point-of-presence located at Building 407.

(4) For buildings that are not directly metered or where continuous or remote metering is not practical, utilities used will be estimated for billing purposes.

4.11 ISSA & Tenant Agreements. NAVSUPPACT Naples tenant agreements and Inter-service Support Agreements (ISSA) shall specifically require the tenant to comply with all provisions of this instruction.

4.12 Lighting

a. Part of the electrical energy consumed at NAVSUPPACT Naples is for lighting. With this in mind, significant energy and cost savings can be achieved by using lighting effectively in following ways:

(1) Reduce lighting levels in large lighted areas to the lowest level practical for safety and access.

(2) Use task lighting for detailed work.

(3) Secure hangar lighting during daylight hours.

(4) Ensure outdoor and security lighting is secured during daylight hours.

(5) Secure recreational field lights when not in use.

(6) Use high efficiency lighting systems.

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(7) Turn off lights in rooms/offices with a sufficient amount of daylight.

4.13 Vending Machines

a. Vending machines are operated by the Navy Exchange (NEX) and Morale, Welfare, and Recreation (MWR) for the convenience of our command. Lighting and refrigeration elements of those machines typically operate continuously or more than is necessary to provide their product and service. All vending machines that consume power from this installation shall have an appropriate vending miser type device installed to make the system more efficient. The cost of this modification shall be borne by the provider of the machine and will be accomplished within a year from the date of this instruction or at the time of the next contract for services whichever is earlier. Those machines that do not comply shall be removed from the installation. The cost of this change shall be paid by the owner or provider of the machine.

4.14 Disposal/Replacement. Equipment removed and disposed of due to its energy inefficiency shall not be returned to service or reissued by DRMO to any individual or activity on this installation. Likewise when a system or component is upgraded and requires maintenance or repair an inefficient system or component will not be used for replacement. In every case the most energy efficient replacement will be applied as is practical and in no case shall it be less efficient.

4.15 Water Conservation

a. Increasing demand not only threatens the water supply and natural environment, but it also requires more energy to heat the water. In effort to reduce energy consumption and water usage and sewage costs the following shall apply to all future design and replacements or maintenance aboard NAVSUPPACT Naples:

b. Develop and maintain a water management plan consistent with the requirements of the best water management practices, enclosure (3) of reference (c). The plan will use the best water management practices as a basis and will briefly

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describe the installation potable water system and the source of potable water. The plan will address the processing of that water the system to distribute potable and then collect, treat, and dispose of waste water. It will describe any water reuse processes and system limiting factors. The plan will address station and or PWD actions to maintain the security and quality of all installation water systems. At a minimum the plan will address creditable water system related issues such as low pressure, minimum pressure for fire system capability, low system inventory, reduced production capabilities, water hours, drought conditions, response to local drought conditions, outdoor use of water such as car washes, irrigation, washing of aircraft, washing or government vehicles, etc.

c. The water rationing plan for the station, should drought conditions force water rationing are as follows:

(1) 80% or less water tank level with inlet valves in the open position and water not increasing, notify the PWO. Water level measurements will then be taken every 3 hours and notification made to PWO.

(2) 70% or less water tank level water rationing will start to take place by securing NEX Laundromat, car/plane washing stations, base food operations will transition to paper goods and secure from using high-volume water operations (scullery, dish washing, etc.).

(3) 60% or less water tank level water rationing will include all of (b) and also include securing all laundry facilities (billeting, fire, environmental, etc.).

(4) Furthermore, 37.5% of the water tank level will be reserved for fire-fighting efforts.

d. All shower heads shall meet no more than a 1.5 gallon per minute rating (GPM). Personal replacement of shower heads in barracks enlisted quarters, housing units, temporary lodging, and common bath units shall be strictly forbidden.

e. All water faucets within common restrooms and locker rooms shall be of the spring loaded automatic type. Substitutions of external or internal power sourced controlled faucets shall be strictly forbidden.

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f. Urinals and water closets shall be of the direct flush type and not of tank type.

g. Irrigation of grounds shall be conducted between dawn and dusk hours (1900 and 0900). Source water shall be taken from wells where applicable. Where not feasible raw water shall be used.