DEPARTMENT OF THE NAVY
U.S. NAVAL SUPPORT ACTIVITY
PSC 817 BOX 1
FPO AE 09622-1000

NAVSUPPACT NAPLES INST 4101.1C
N4

24 DEC 2008

NAVSUPPACT NAPLES INSTRUCTION 4101.1C

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

Subj: ENERGY AND WATER MANAGEMENT PROGRAM

Ref: (a) Executive Order No. 13423 of 24 Jan 07
(b) OPNAVINST 4100.5D
(c) COMNAVREGEUR 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 NAVSUPPACT Naples and tenant commands. This instruction represents a major revision and should be read in its entirety.

2. Cancellation. NAVSUPPACT NAPLES INST 4101.1B.

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 commands, and shore installations in the European area. NAVSUPPACT Naples department and tenant commands will comply fully with references (a) through (c). Enclosure (1), provides instruction and documentation for appointment as Energy Program 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.

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. An effective energy management program requires a well defined chain of command for accountability. Accordingly, NAVSUPPACT Naples and all tenant commands shall comply fully with enclosure (3), the Energy and Water Management Program for NAVSUPPACT Naples.

R. B. RABUSE

Distribution:
NAVSUPPACT NAPLES INST 5216.4X
Lists: I through V

ENERGY CONSERVATION PROGRAM MANAGER APPOINTMENT MEMORANDUM FORM

24 DEC 2008

4101
Date

From: Commanding Officer, U.S. Naval Support Activity, Naples, Italy
To: (Name of Energy Program Manager Designee)

Subj: DESIGNATION AS ENERGY PROGRAM MANAGER

Ref: (a) COMNAVREGEUR 4100.1A
(b) NAVSUPPACT NAPLES INST 4101.1C

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

2. As Energy Program Manager, 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 Energy Program Monitors.

R. B. RABUSE

Copy to:
PWO

COMMAND/NAVSUPPACT NAPLES DEPARTMENT ENERGY MONITOR NOTICE FORM

4101
Date

From: **(Cognizant Commanding Officer, Officer in charge, or NAVSUPPACT Naples Department Head)**
To: **(Energy Monitor Designee)**

Subj: ENERGY MANAGEMENT AT **(COMMAND/ACTIVITY/DEPARTMENT)**

Ref: (a) COMNAVREGEUR 4100.1A
(b) NAVSUPPACT NAPLES INST 4101.1C

1. **(Name of Energy Monitor)**, at DSN 625/626-XXXX, represents this **(command/activity)** in the Area Energy Management Program. The Energy Monitor's responsibilities include monitoring temperature and energy 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 Energy Program manager.

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

3. Saving energy 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 NAVSUPPACT Naples Department Head)

Copy to:
NAVSUPPACT Naples Energy Program Manager
Service Record

ENERGY AND WATEER MANAGEMENT PROGRAM
NAVSUPPACT NAPLES

1.0 Program Scope
2.0 Energy & water resources management Goals
3.0 Responsibilities and Plan Management
    3.1 Commanding Officer
    3.2 CO and OIC of Tenant and Supported Commands
    3.3 Public Works Officer
    3.4 Energy Program Manager
    3.5 Public Affairs Officer
    3.6 Supply Officer
    3.7 Resident OICC
    3.8 Building Energy Monitors
    3.9 Installation Energy Board
4.0 Standards and Guidelines
    4.1 Seasonal Operation of HVAC Equipment
    4.2 Temperature Settings for Occupied Spaces
    4.3 Supplemental Space Heating
    4.4 Window Air Conditioners
    4.5 Domestic Hot Water
    4.6 Data Processing Equipment
    4.7 Electric Motors
    4.8 Maintenance
    4.9 Utilities Metering
    4.10 ISSA & tenant Agreements
    4.11 Lighting
    4.12 Vending Machines
    4.13 Disposal/Replacement
    4.14 Water Conservation

1.0 Program Scope

The NAVSUPPACT Naples 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 must:

(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 and contracts.

(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 Managers, and an Installation Energy Board to provide oversight and progress review.

(8) Ensure that accurate energy accounting tools and procedures are in place to establish utility baselines, set consumption goals, and monitor program performance. The Annual Energy &

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. Simply stated, the most effective energy management program increases individual education and awareness to reduce the end-user consumption. To do this, NAVSUPPACT Naples must:

(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 so as to reduce the overall consumption of these resources, and meet specific Federal and Navy Policy reduction targets as specified below.

(1) Energy Reduction. 3% reduction per year based on FY2003 consumption of 93.06 (MBTU/KSF).

(2) Water Reduction. 2% reduction per year based on FY2007 consumption of 21.79 (KGAL/KSF).

(3) Renewable Energy. 5% of electrical consumption from renewable sources by FY2010, 7.5% of electrical consumption from renewable sources by FY2013, and 25% of electrical consumption from renewable sources by FY2025. Measure: Total renewable electricity consumption / Total electrical 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. Meter all electrical consuming facilities by FY2012. Meter all Natural Gas consuming facilities by FY2015. Measure: Number of facilities with meters/total number of facilities.

(6) Sustainable Design. 15% of existing facilities must meet the criteria of the Federal Leadership in High Performance and Sustainable Buildings by FY2015. Measure: Number of facilities meeting the criteria/Total number of facilities.

(7) Additionally, all military construction (MILCON) and special projects must be designed to Leadership in Energy and Environmental Design (LEED) Silver criteria. Beginning in FY2010 new facilities and major renovations will need to consume less fossil fuel than comparable facilities consumed in FY2003 by the following amounts:

- 55% less fossil fuel consumption after FY2010
- 65% less fossil fuel consumption after FY2015
- 80% less fossil fuel consumption after FY2020
- 90% less fossil fuel consumption after FY2025
- 100% less fossil fuel consumption after FY2030

(8) Energy Efficient Product Purchases. Purchase energy efficient products (those listed by Environmental Protection Agency energy star, and Department of Energy Federal Energy Management Program). 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.

(9) Energy Efficient Leasing. Beginning in FY2010, no Federal Agency shall enter into a lease if the lease space has not earned an Energy Star label within the most recent year.

(10) 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.

3.0 Responsibilities and Plan Management

a. 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:

```
NAVSUPPACT NAPLES        ENERGY MANAGEMENT        TENANT COMMANDS

   CO NSA                                            CO/OIC
     |                                                 |
   XO NSA  --------- PUBLIC WORKS OFFICER            XO/AOIC
     |                       |                         |
 DEPT. HEAD                  |                     DEPT. HEAD
     |                       |                         |
    --------------     ENERGY MANAGER   --------------
     |            |          |          |              |
 DIV. HEAD        |          |          |          DIV. HEAD
     |            |___ ENERGY MONITORS__|              |

BRANCH HEAD                                        BRANCH HEAD
     |                                                 |
FOREMAN/LPO                                        FOREMAN/LPO
     |                                                 |
  WORKER                                             WORKER
```

3.1 Commanding Officer

a. Require command compliance with this instruction.

b. Establish energy policy and direct and evaluate energy management efforts.

c. Budget and allocate resources to effectively implement and administer the Energy Management Program.

d. Establish the energy demand management policy for shedding loads and peak shaving.

e. Serves as the senior member of the Installation Energy Board (IEB).

3.2 CO or 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 Manager (BEM).

d. Serves as a senior member of the Installation Energy Board as designated by the CO or OIC.

3.3 Public Works Officer

a. Provide periodic briefing to the Commanding Officer, Department Heads, and Unit Commanders on energy management efforts.

b. Ensure that all NAVSUPPACT Naples tenant agreements all ISSAs include energy program participation requirements.

c. Budget and allocate resources in support of specific energy initiatives.

d. Appoint the NAVSUPPACT Naples Energy Manager and support the implementation of the Energy and Water Resource Management Program.

e. Recommend the command policy for load shedding and peak shaving to the Commanding Officer.

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

g. CO-Chairs the Installation Energy Board (IEB) with the Energy Manager.

3.4 Energy Program Manager

a. Coordinate the development of the Annual Energy and Water Reduction Plan required by reference (c), by 30 September annually. Coordinate the update of the annual plan annually by the end of the 2nd QTR.

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), Utility Cost Analysis Report (UCAR) 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), General Military Training (GMT), 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.

j. Coordinate with the Public Affairs Officer to promote personal awareness of energy conservation and provide technical assistance for publishing energy related articles.

k. Promote energy awareness in the community, including the

coordination and execution of the annual Navy Energy Awareness Week.

l. Serve as Chairperson of the installation Energy Board (IEB) Conduct meetings at least semiannally.

m. Provide the PWO a quarterly report on the activity's energy conservation efforts and prepare and submit an annual nomination package for the SECNAV Energy Conservation Incentive Award.

3.5 Public Affairs Officer

a. Work with the Energy Manager to promote personal awareness and acceptance of energy and water conservation and the benefits of conservation to the Navy, community, and individual.

3.6 Supply Officer

a. Identify and promote the use of energy efficient and water saving advices available through the Navy supply system.

3.7 Facilities Engineering and Acquisition Division

a. Ensure that construction contracts provide the most in life cycle cost effective equipment designed to minimize energy use and water consumption.

b. Ensure that construction contractors do not waste base utility resources.

3.8 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 part, their chain of command, and the Energy Manager.

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.

3.9 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 discuss energy/water management policies and directives.

b. The IEB is chaired by the Energy Manager and the Public Works Officer and consists of key management personnel from major commands and tenant activities.

4.0 Standards and Guidelines

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

4.1 Seasonal Operation of HVAC Equipment

a. Operating HVAC equipment in mild weather represent 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 guidelines have been established to minimize the energy cost of heating and cooling buildings during mild weather.

b. The PWO 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 or cooling buildings during mild weather the following guidelines are provide:

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

(2) Heating systems should be energized when the outside temperature falls below 60 Fahrenheit for a four period during normal working hours on five consecutive days, typically mid-November.

(3) Cooling systems should be energized when the outside temperature falls exceeds 80 Fahrenheit for a four hour period during normal working hours on five consecutive days typically mid-May.

(4) The heating and cooling systems will be de-energized when these conditions no longer exist.

(5) Heating activation dates are November 1st thru April 30th. Cooling activation dates are May 1st thru October 31st.

4.2 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 too 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 building spaces.

4.2.1 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

(a) Spaces requiring comfort cooling shall be maintained at temperatures no lower than **76 °F (24.4°C)**.

(b) During unoccupied hours, temperature controls shall be set no lower than **80.6 °F (27° C)** and cooling system shall be turned off whenever possible.

(2) Heating

(a) Spaces requiring comfort heating shall be maintained at temperatures no greater than **70 °F (21.1°C)**.

(b) During unoccupied hours, temperature controls shall be set no greater then **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) Heating and cooling systems shall not be run at the same time unless specifically designed to do so.

4.2.2 Shop, Warehouse, and Hangar Spaces

a. 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.

(1) 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.

4.2.3 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 **76°F (24.4°C)**.

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

(2) Heating

(a) These spaces requiring comfort heating shall be maintained at temperatures no greater than **70°F (21.1 °C)**.

(b) During unoccupied hours, temperature 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.

4.3 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 Energy Program Manager and proper permit from NSA Fire Department. Consent is required only for individually controlled, supplemental heaters in NAVSUPPACT Naples working spaces.

4.4 Window and Ductless Split System Air Conditioners

a. Window and ductless split system type air conditioners and heat pumps represent a very large portion of the NAVSUPPACT Naples energy usage. This equipment is inherently inefficient. Use of window and ductless split system type air conditioners will not be considered except as a short term or stopgap measure. (It is recognized that some buildings at NAVSUPPACT Naples were not designed for space cooling and lack sufficient ventilation for current mission requirements). Accordingly, some latitude to use window and ductless split system type A/C equipment is provided. The sizing, efficiency and operating hours of this equipment should be closely reviewed to reduce the overall operating cost of space cooling. Note: All discussions of AC systems will apply equally to heat pump systems.

(1) Window and ductless split system type A/C shall not be used at any new facility or permanent building.

(2) Window and ductless split system type A/C units shall only be operated during normal working hours or other periods where the facility or room is occupied.

(3) Window and ductless split system type A/C units shall only be operated when indoor air temperatures exceed **75°F** and use of outside ventilation is not sufficient to provide lower indoor air temperatures.

(4) All window and ductless split system type air conditioners shall require an engineering or Public Works Department evaluation of the applicable load and required sizing. Likewise, before a window or ductless split system A/C unit will be

authorized, the facility will be confirmed to have adequate thermal insulation.

(5) Exceptions to the above requirements may be necessary for mission requirements and certain specialized circumstances. The NAVSUPPACT Naples Energy Manager will grant exceptions upon sufficient justification and with concurrent technical review by the Public Works Department.

(6) Beginning immediately all new ductless split AC and heat pump systems will be install with an occupancy control incorporated into the control of the system (hard wired such that disabling the control will disable the unit). All currently installed systems will have an occupancy control installed within 12 months of this 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 15 minutes. The cost of this modification will be paid by the user of the system. Systems not modified within one year from the date of this instruction shall be removed.

4.5 Domestic Hot water

a. 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, nonresidential 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. Executive Order 13123 requires that all acquisitions of microcomputers, including personal computers, monitors, and printers, meet EPA's Energy Star Requirements effective 21 October 1993.

(1) All data processing equipment installed at NAVSUPPACT Naples 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 Energy Program Manager.

4.7 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.

4.8 Maintenance

a. 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.

4.9 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 in accordance with reference (c).

(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 Base Wide Energy Management System.

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

4.10 Inter-service Support Agreements and Tenant Agreements

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

4.11 Lighting

a. About 45% 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.

4.12 Vending Machines

a. Vending machines are operated by NEX and MWR for the convenience of our Commands. Lighting and refrigeration element 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 born 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.

4.13 Disposal/Replacement

a. 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.

4.14 Water Conservation

(1) 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:

(2) Develop and Maintain a Water Management Plan consistent with the requirements of the Best Water Management Practices. The Best Water Management Practices, Enclosure (3), of Reference (c), will be used as a basis and will briefly 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.

(3) The water-rationing plan for the Station, should drought conditions force water rationing are as follows.

(a) 80% or less water tank level with inlet valves in the open position and water not increasing, notify the Public

Works Officer. Water level measurements will then be taken every 3 hours and notification made to Public Works Officer.

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

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

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

(4) All shower heads shall meet no more than a 1.5 gallon per minute rating (GPM). Personal replacement of showerheads in Barracks Enlisted Quarters, Housing Units, Temporary Lodging, and common bath units shall be strictly forbidden.

(5) 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.

(6) Urinals and Water Closets shall be of the direct flush type and not of tank type.

(7) Irrigation of grounds shall be conducted between dawn and dusk hours (1900 and 0900). Source water shall be taken from wells where applicable.