

generators

12<sup>th</sup> PMO - Radios & Alarms

✓ \* 6nd GLEO - 25-25 KW

3620 / PW

✓ \* 3000 TAGAN - 45 KW

200 / well

3021 dispensary - partial

\* 504 - tower - 65 KW

\* 571 - Radar room 100 KW

\* 804/5 - trans / Revers Building plus PAO 65 KW

\* 843 - Operations - 65 KW

~~849~~

850 lift station

1001 well house

629 lift station

2001 water res

4125 - lift station

\* 4151 - steam plant feeds

ce-1 Supply

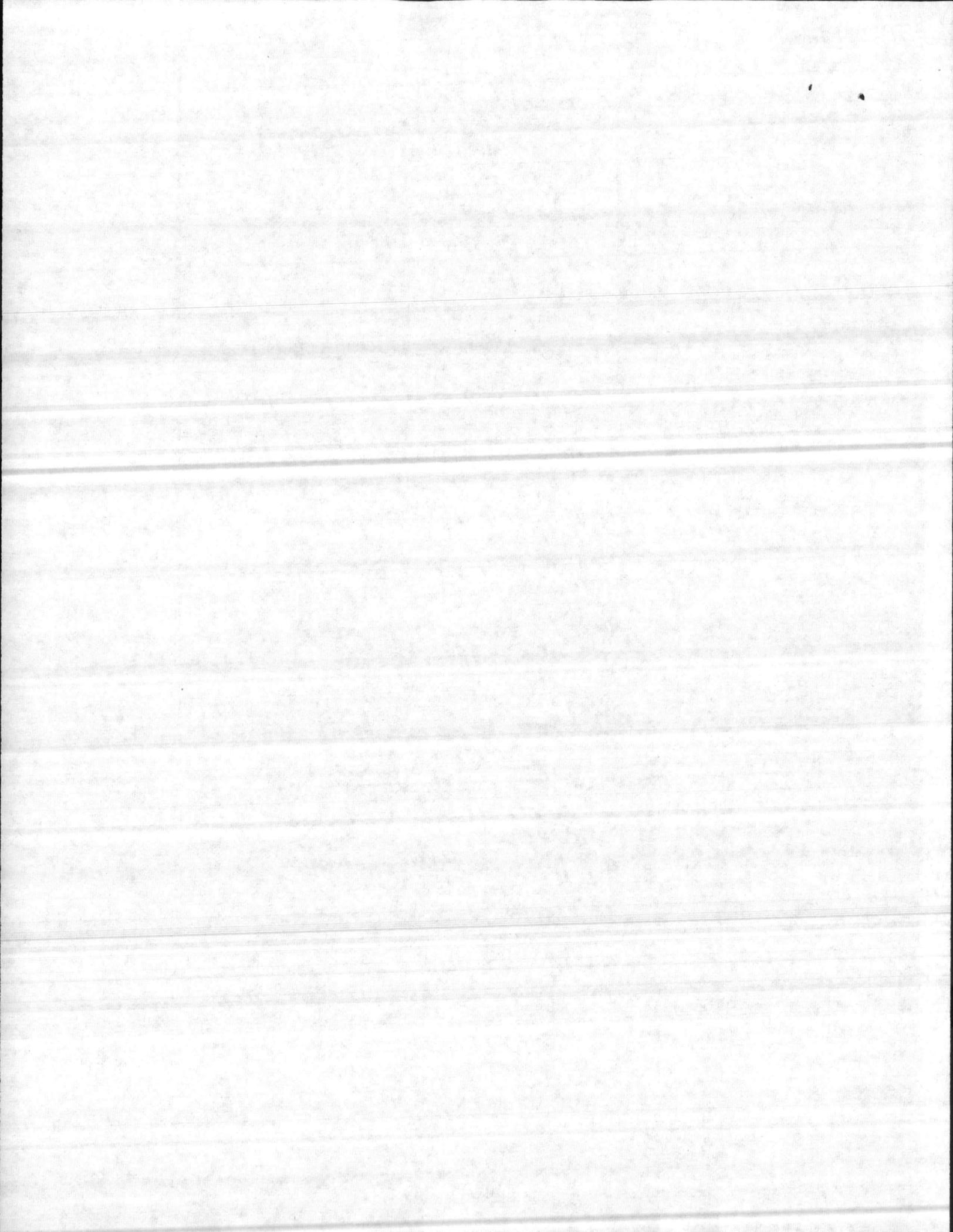
60 KW

65 KW

65 KW

Mess halls

Dispensary



FM: CO

TO: CG Ac/s FAC

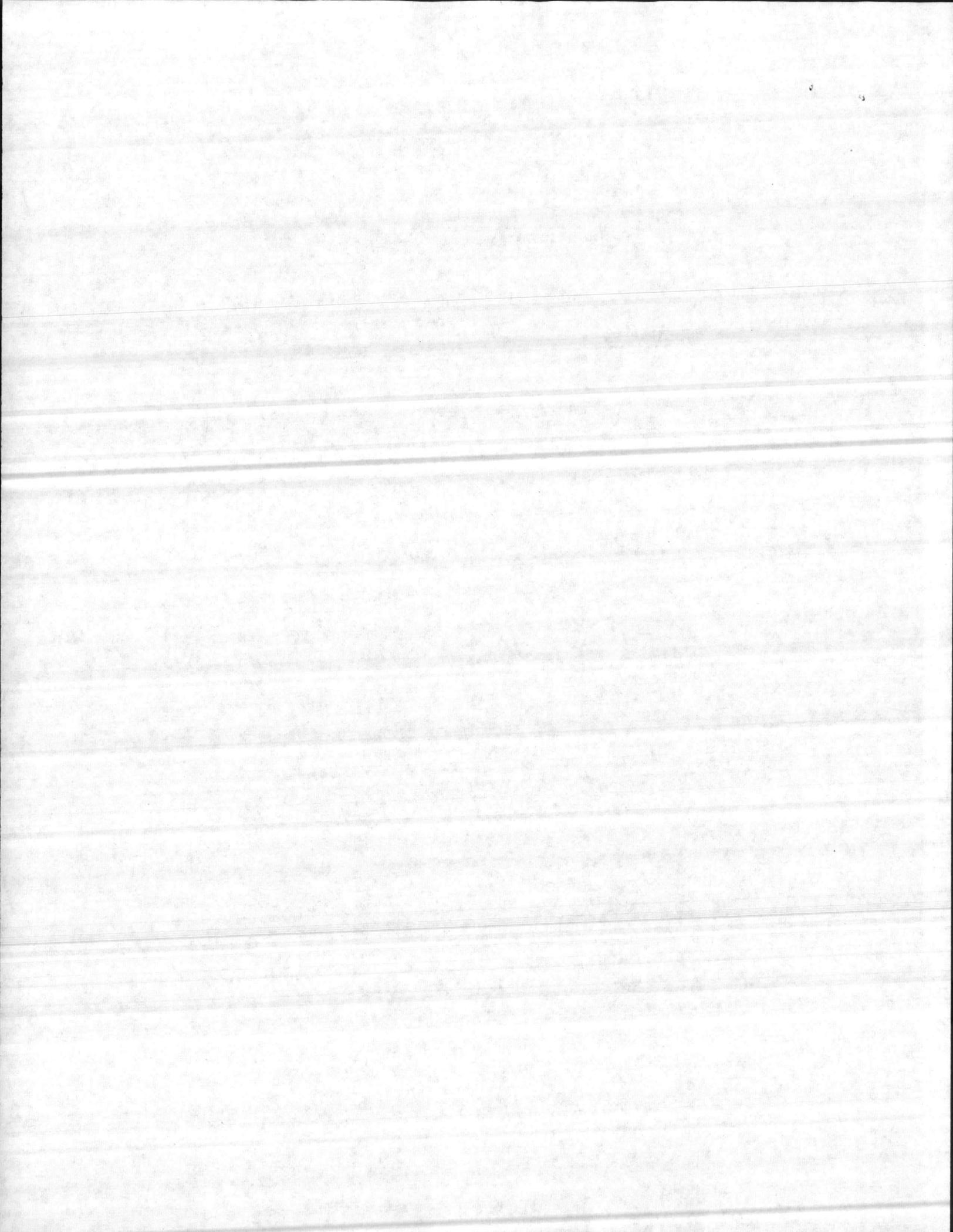
Subj: ~~CG~~ Load Shedding/Destructive Weather Generators

1. As discussed with the MCB energy conservation officer (Major Maropati) the following buildings are considered candidates for load shedding during peak energy days:

Notes	Bldg No.	Description
1	CG-1	MATCS - 28 HQ
3	AS-130	Supply/Computer terminal
3	AS-222	Naval Aviation Maintenance Training Detachment
3,4	AS-226	Dining Facility
2,4	AS-302	Dispensary
3	AS-320	Simulator
3,4	AS-414	Commissary
3,4	AS-504	Tower
1	AS-571	GCA Vans
2	AS-804/5	Radio Receiver/PAO
2,4	AS-843	Operations
3	AS-3504 <del>AS-849</del>	Ground Electronics Maintenance
1	AS-3000	TACAN
3,4	AS-4012 AS-4141	Dining Facility Avionics

Notes

1. Generators available for full service
2. Generators available but currently provide only emergency service. Will require rewiring.
3. ~~the~~ Require generators ~~to~~ and hook up capability
4. Also Required for ~~destructive weather~~



2. The following additional buildings require emergency power generators and hookups for destructive weather contingencies

AS 106 water well

AS 202 Gym / Shelter

AS 208 E club / Shelter

~~AS 414 Commissary~~

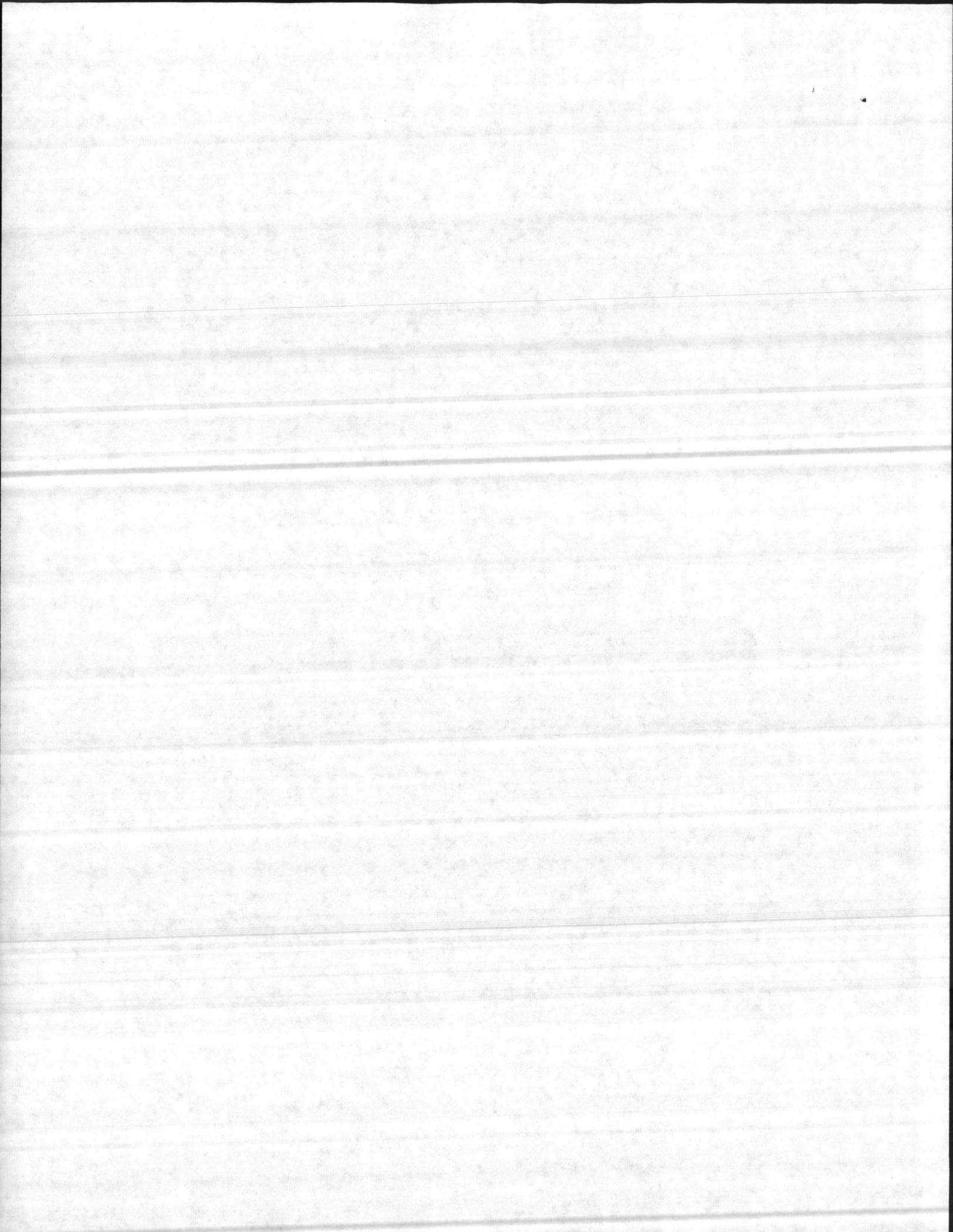
AS 822 Communications Center

TC 1500 Delahio School / Shelter

AS 710 O club

3. Assistance is requested in obtaining the required electrical work to enable MCAAS(H) New River to participate in the MCB Camp Lejeune's energy conservation program and provide emergency power during destructive weather situations.

blank copy to: 5-3



AS122 - PMO

AS847 - GE

WX

AS 3000 - TACAN

AS 3620 - R/W

226 - din fac

AS 206 - well

4012 - " "

AS-302 - dispensary

414 - commissary

AS-504 - tower

208 - e club

AS-571 - radar van

202 - gym

AS-804/5 - rear bldg / PAO

106 - well

AS-843 - ops

TC1500 - Delatio school

AS-849

822 - comm

AS-850 - sewage lift

843 - ops

AS 1001 - well

302 - dispensary

629 - sewage lift

2001 - water

4125 - sewage lift

4151 - steam plant

CG-1

320 - simulator

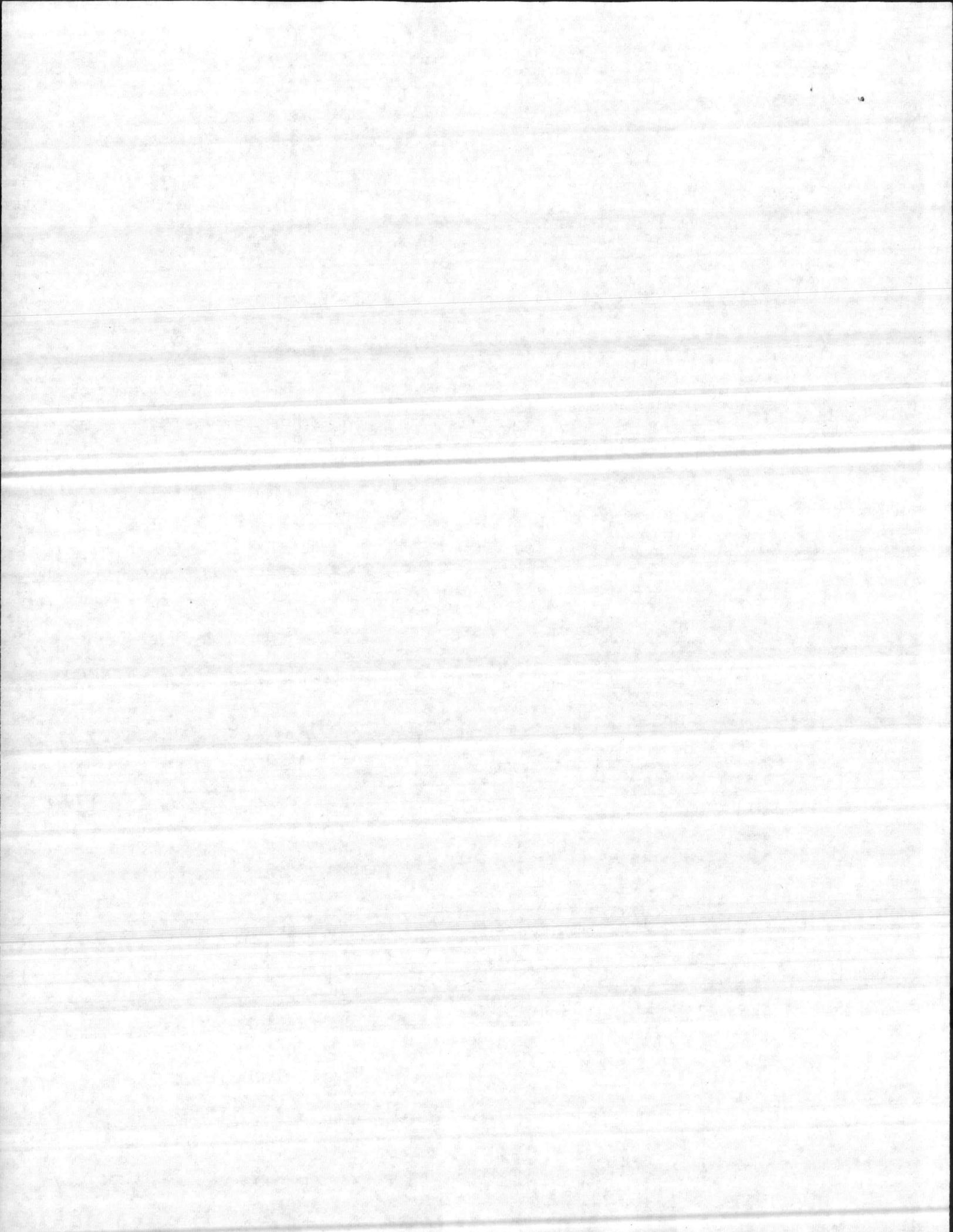
222 - NAMTD

brks

4141 - avionics

518, 4106 - IMA

130 - supply (OP)



# Memorandum

203:DWN:gmp  
3440

DATE: 9 July 1981

FROM S-3 Officer

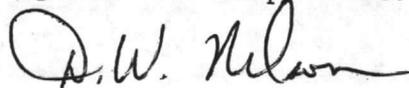
TO S-4 Officer

SUBJ Emergency Generator Hook-up for Destructive Weather Conditions

1. In the event New River experiences destructive weather, the below listed buildings will require electrical power augmentation/back-up which would be provided by portable tactical generators:

Messhall	Bldg	AS - 226
Messhall	Bldg	AS - 4012
Commissary	Bldg	AS - 414
Enlisted Club	Bldg	AS - 208
Gymnasium	Bldg	AS - 202
Water Well	Bldg	AS - 106
Delalio School	Bldg	TC - 1500
Dispensary	Bldg	AS - 302
Operations	Bldg	AS - 843
Communications	Bldg	AS - 822

2. Request you coordinate with Base Maintenance to provide necessary electrical connections at the above mentioned buildings, as soon as possible.



D. W. NELSON





UNITED STATES MARINE CORPS  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO  
FAC/JAM/joh  
11300  
24 Nov 1981

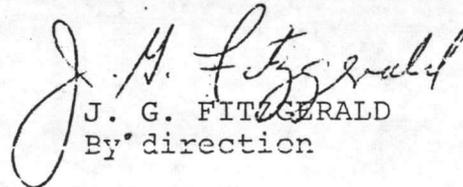
From: Commanding General  
To: Distribution List

Subj: Proposed Marine Corps Base Order 11300.1G

Encl: (1) Proposed Base Order 11300.1G, Utility and Energy  
Management Program

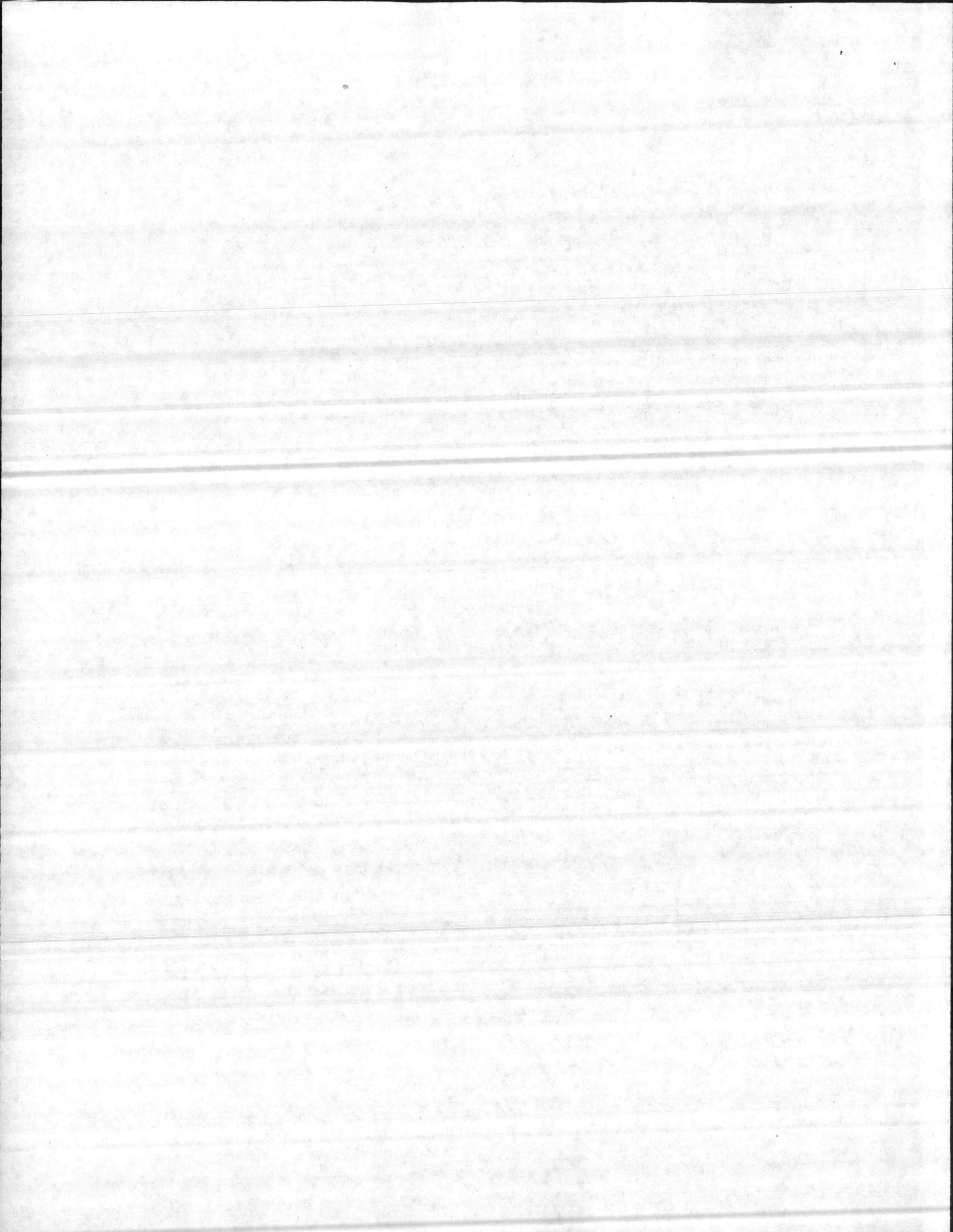
1. Enclosure (1) is the draft of the Marine Corps Base Order concerning the Utility and Energy Management Program. It is requested that enclosure (1) be reviewed and that recommended changes and/or concurrence be forwarded to this Headquarters (Attn: Assistant Chief of Staff, Facilities) by 11 December 1981.

2. For further information or assistance on this proposal, please contact Major J. A. MARAPOTI, Office of the Assistant Chief of Staff, Facilities, at extensions 3034/2544.

  
J. G. FITZGERALD  
By direction

DISTRIBUTION:

CG, 2d MarDiv  
CG, 2d MAW  
CG, 2d FSSG  
CO, MCAS (H) NR  
CO, MCES  
CO, MCSSS  
Chairman, Energy Conservation Committee  
Area Commander, Camp Geiger  
CO, FMSS  
CO, NRMC  
CO, NRDC  
BMO  
AC/S, Log  
AC/S, PSvcs  
AC/S, Manpower  
CO, SptBn, MCB  
CO, HqBn, MCB  
CO, ITS  
Base MTO  
Base CEO  
Base SSO  
FireDept  
Base Safety  
Base Telephone  
MCEX  
CCMS  
Base Adjutant



FAC/JAM/joh  
11300  
24 Nov 1981

Subj: Proposed Marine Corps Base Order 11300.1G

DISTRIBUTION Cont.

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CO, RRDet

JPAO

OIC, Consolidated ASC

CommissaryO

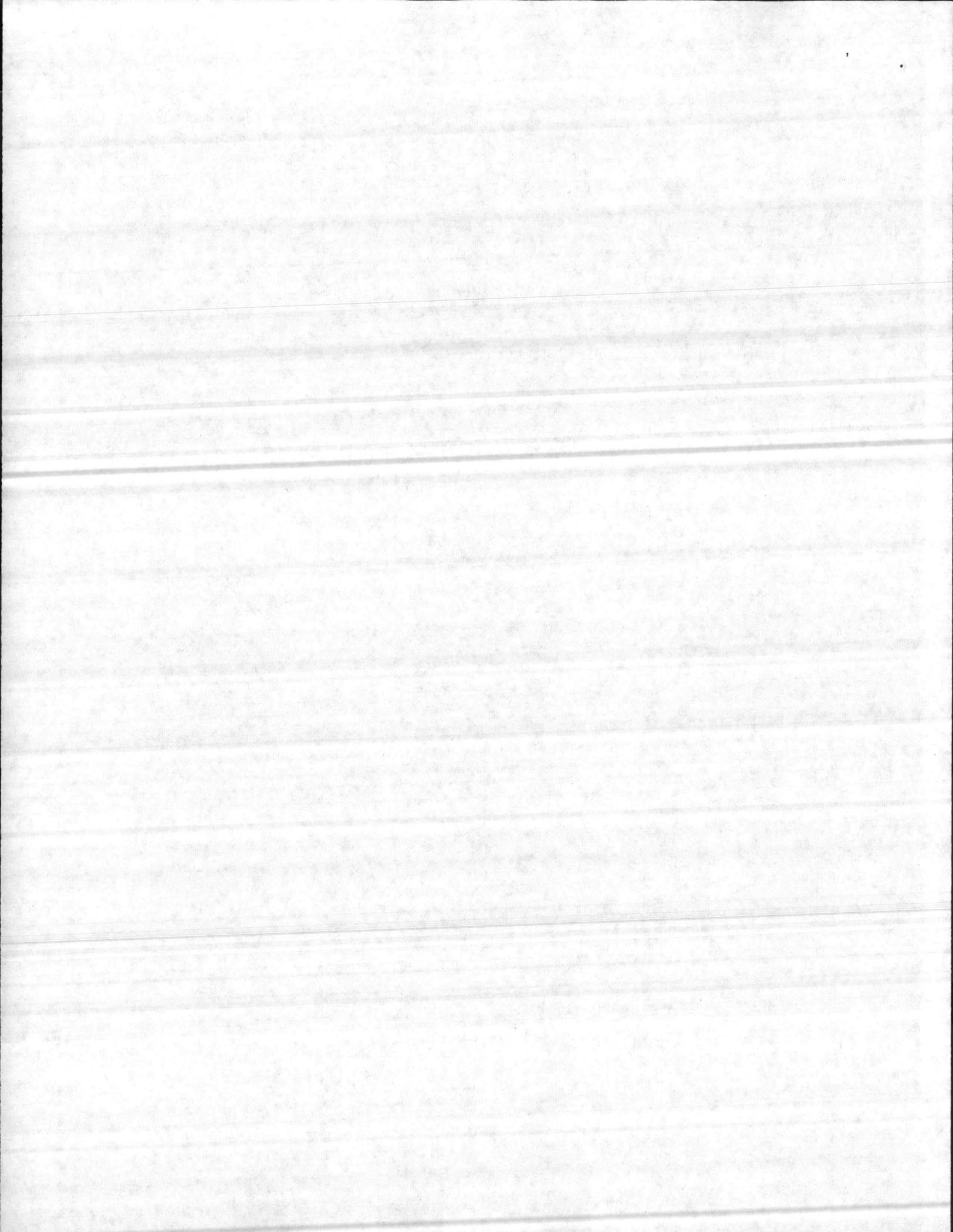
Dir, FamHsg

Dir, UPH

Chairman, Energy Conservation Council, MCAS

Base Chaplin

Superintendent, CamLejDepScols



UNITED STATES MARINE CORPS  
Marine Corps Base  
Camp Lejeune, North Carolina 28542

BO 11300.1G  
FAC/JAM/joh  
Date

BASE ORDER 11300.1G

From: Commanding General  
To: Distribution List

Subj: Utilities and Energy Management Plan (Draft)

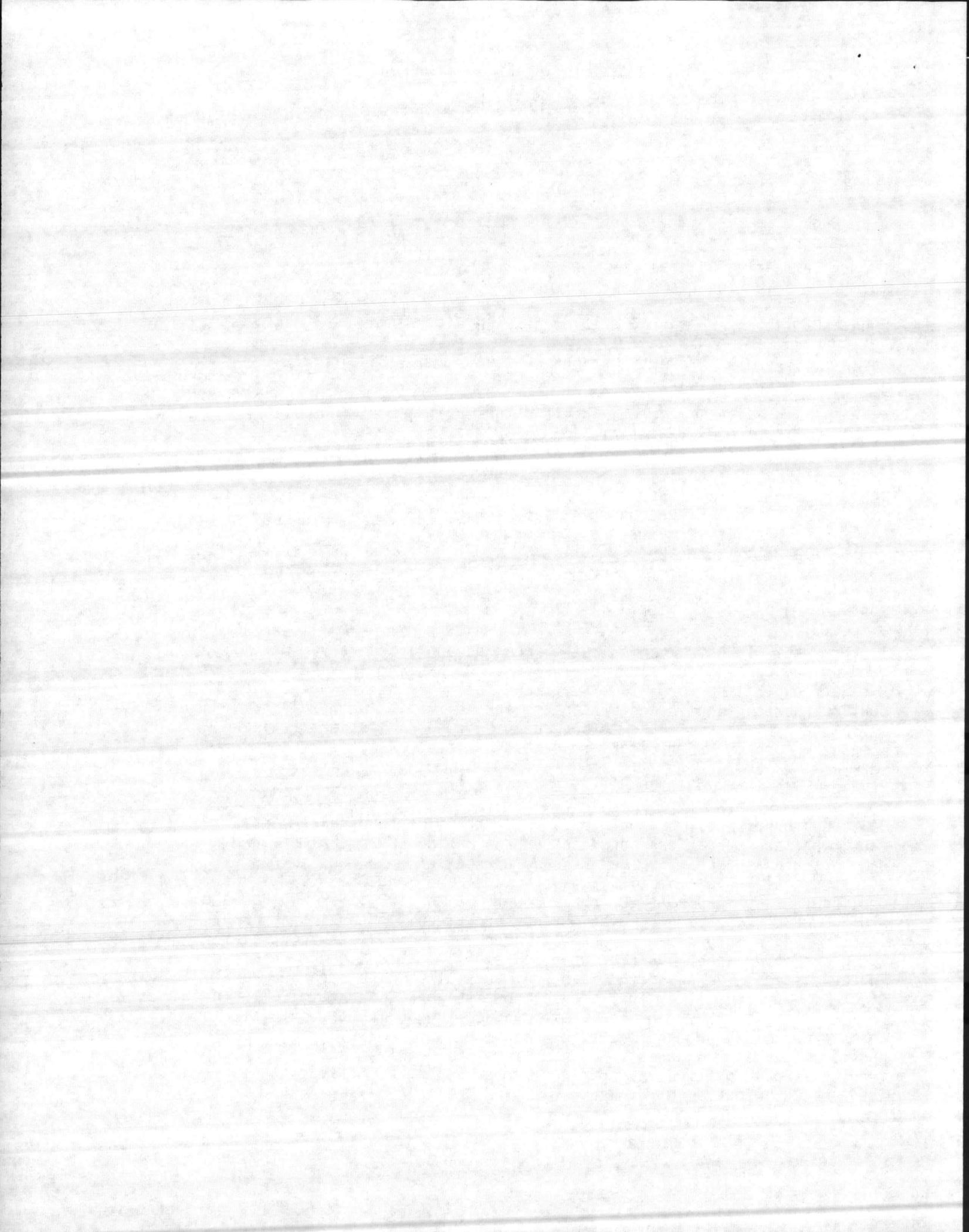
Ref: (a) Federal Property Management Regulations, Section 116-3  
(b) MCO 4100.4A

Encl: (1) Facilities, Maintenance and Conservation Terms and Definitions  
(2) Early Turn-on of Air Conditioning  
(3) Utility and Energy Conservation Committee  
(4) List of Buildings currently controlled by the Utility Monitoring and Control System  
(5) Duties and Responsibilities of Building Monitors  
(6) Facility Temperature Standards Notice (SAMPLE)  
(7) Utility and Energy Contingency Plan  
(8) Energy Alert Procedures  
(9) Utilities and Energy Command Inspection Form (SAMPLE)  
(10) Facility Energy Discrepancy Report (SAMPLE)

1. Purpose. To establish the utilities and energy conservation policy, goals, program and contingency plan for Marine Corps Base, Camp Lejeune, Marine Corps Air Station (Helicopter), New River, and their tenants, in order to achieve a continuing reduction in energy consumption, eliminate wasteful energy usage while enabling all commands to continue their operations and training missions without compromise to military readiness, safety, or effectiveness.

2. Cancellation. BO 11300.1F

3. Background. Utility and energy costs continue to escalate annually requiring more Operations and Maintenance, Marine Corps (O&MMC) funding. At Camp Lejeune and MCAS (H), New River, despite some progress in conservation efforts, costs have dramatically increased. The annual costs for heating and cooling during FY-1979, 1980 and 1981 were \$12,000,000, \$18,000,000 and \$19,500,000, respectively. The Marine Corps requires continuing, aggressive conservation programs at the activity level which will ensure attainment of the goals established by references (a) and (b). Despite the unique differences in the mission of each of the major commands at Camp Lejeune and MCAS (H), New River, the Department of the Defense mandated goals, the commitment of the Department of the Navy and the Commandant of the Marine Corps to attain the goals and the prospects of reducing both the consumption of our country's precious natural resources and Operations and Maintenance, Marine Corps funding, should provide the spirit of cooperation and motivation required for a successful program.



(b) The minimum cooling temperature setting authorized is 78 F. The exceptions to this setting are rooms or buildings where electronic equipment is operated and operating rooms in the medical center. The minimum temperature setting for the later cases is 75 F.

(c) Air conditioning may only be activated when space temperature exceeds 85 F and when possible ventilation and air circulation is inadequate to relieve discomfort.

(d) Buildings authorized "early" turn-on of air conditioning are listed in enclosure (2). These are buildings within which is performed a medical mission, no natural ventilation exists, electronic equipment operates, or where occupancy levels are so high as to generate sustained temperatures in excess of 85 F.

(e) All blowers on fan systems must be shut off when occupants leave enlisted or officer personnel housing.

(f) All window air conditioners must operate at levels which will not produce temperatures below 78 F and must be shut off when not in use.

(g) Air handling systems will be utilized without compressors during the four to six weeks preceding the normal air conditioning season. This will be the case in enlisted personnel housing and dining facilities.

(h) Air conditioning hours are established as follows:

((1)) Administrative spaces: 1000 to 1615, Mondays through Fridays. Air conditioners may not be turned on outside of cooling hours unless temperatures exceed 85 F and all possible ventilation and air circulation cannot relieve severe discomfort of personnel.

((2)) Dining Facilities: 1000 to 1900, seven days a week.

((3)) Enlisted Personnel Housing: 0500 to 0800 and 1500 to 2300, Mondays through Fridays; 0500 to 2300 on Saturdays, Sundays and holidays.

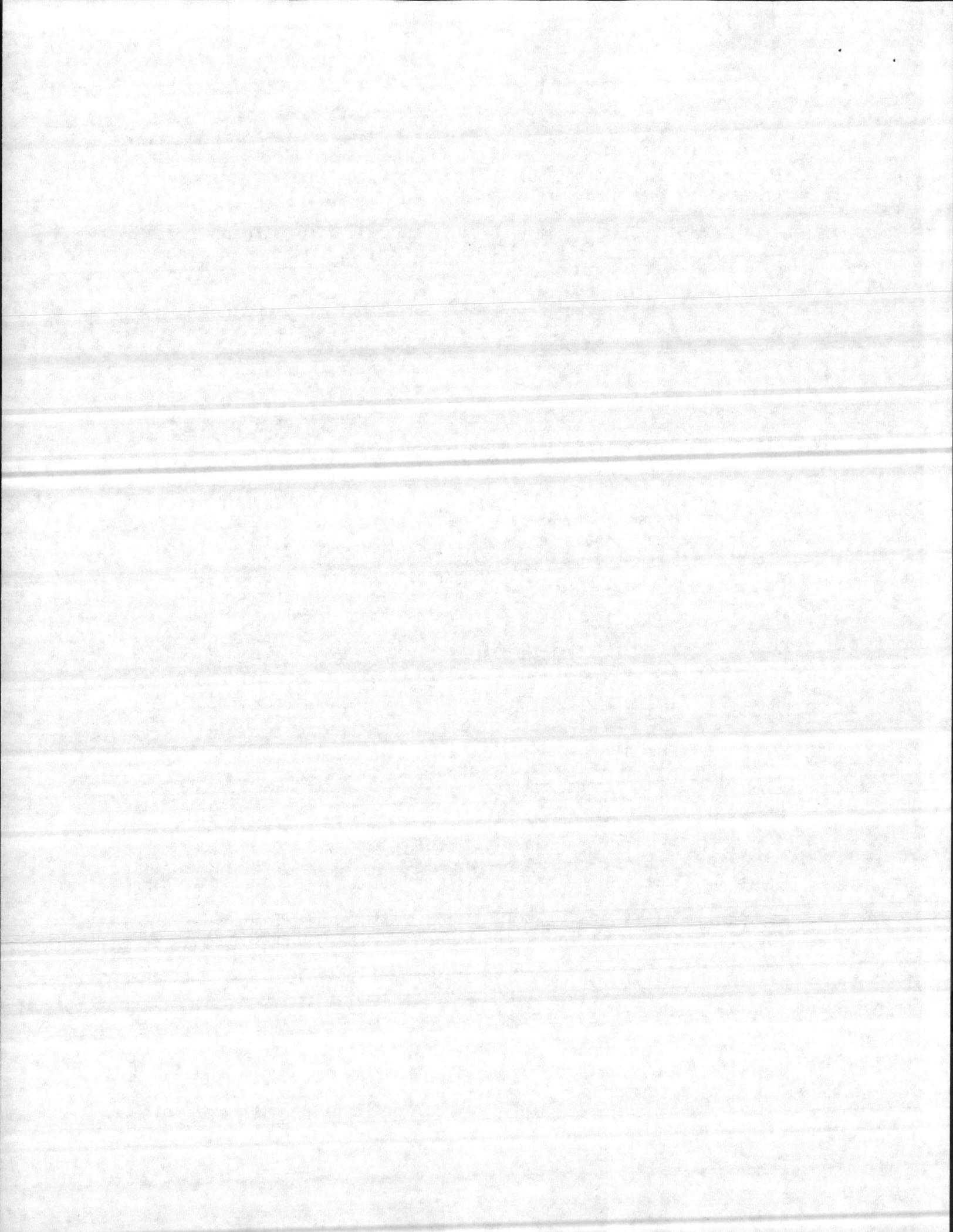
((4)) All other nonmedical facilities

((a)) Exchange Facilities: 0700 to 1800, seven days a week

((b)) Commissary Facilities: 0900 to 1800, Tuesday through Friday; 1000 to 1500 and 1900 to 2300 on Saturdays, Sundays and Mandays.

((c)) Club Facilities: 100 to 2300 on the days Clubs are in use.

(i) Air conditioning for lounges, meeting rooms, dining areas, and other areas of sporadic use will be authorized only during the period of use. Where possible, curtains should be used to reduce the radiation heating of interior floors and walls.



((5)) Commissary. 1800 to 0600 Monday through Fridays and 1800 Friday to 0600 Monday, temperatures will be set back to 55 F.

((6)) Exchange. 1800 to 0800, seven days a week, temperatures will be set back to 55 F.

((7)) Chapels. Temperatures will be set back to 50 F, 24 hours a day, Mondays through Saturdays and 68 F, 0700 to 1200 and 1600 to 1800 on Sundays.

((8)) All other non-medical facilities will be set back to 50 F from 1800 to 0600, seven days a week.

((9)) Leaking steam lines should be reported to the Emergency Service Desk, Base Maintenance at extensions 3001/3002.

((10)) Notify Emergency Service Desk, extensions 3001/3002, Base Maintenance if assistance is needed to make temperature adjustments on thermostats.

(3) Hot Water. The maximum hot water temperatures for facilities will be as follows:

(a) Domestic hot water heaters without dishwashers - 105°F.

(b) Domestic hot water heaters with dish washers - 120°F.

(c) Hot water for medical operations - 140°F.

(4) Lighting Requirements

(a) Interior Lighting

((1)) Lighting is to be tailored or retrofitted where possible to actual requirements, in accordance with lighting standards set forth below:

100 Foot-candles in Classrooms

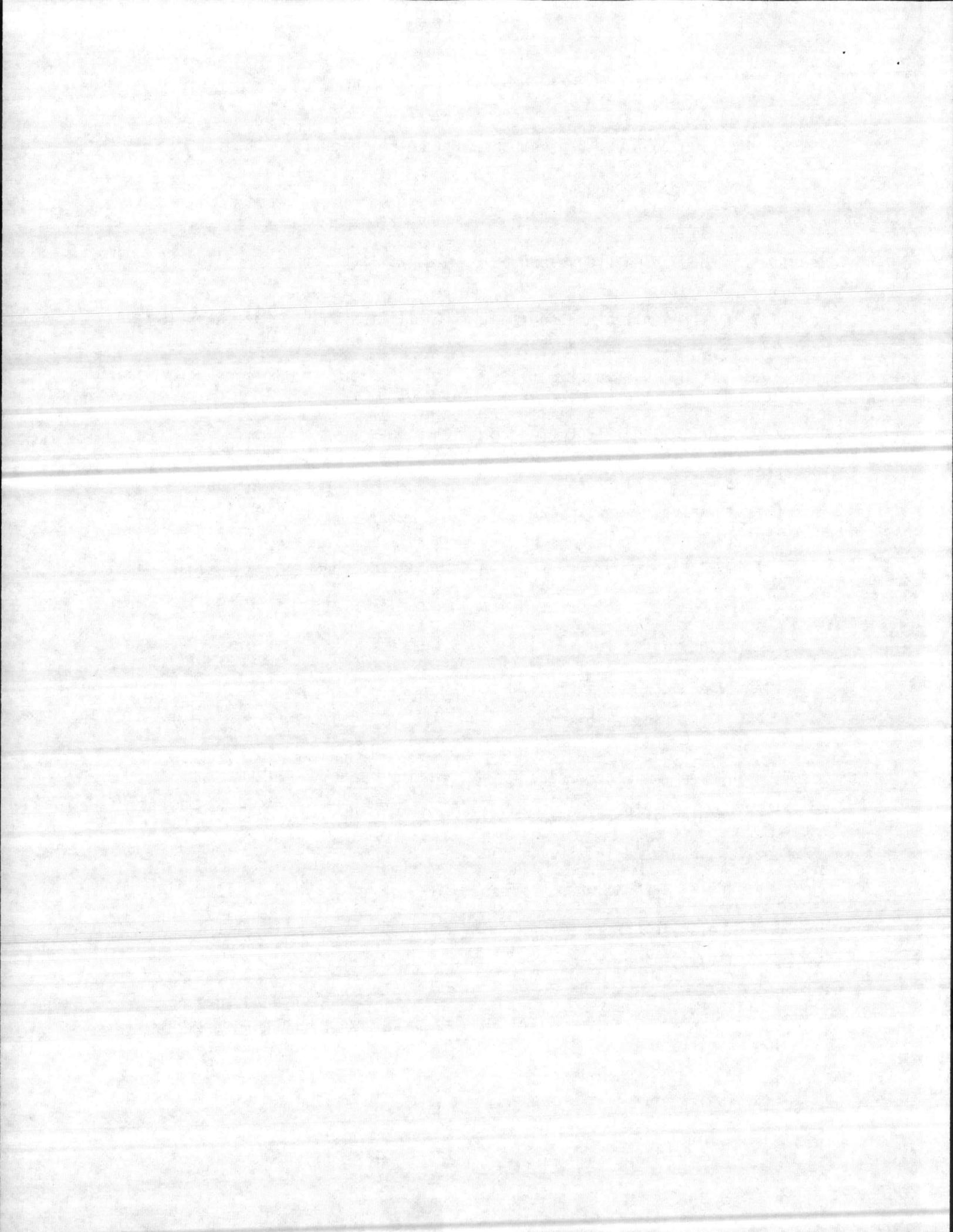
50 Foot-candles in Administrative Spaces

30 Foot-candles in Maintenance Areas

10 Foot-candles in General Areas

10 Foot-candles in Hallways

((2)) Where possible, task lighting is to be used in lieu of the overuse of general lighting. Full use is to be made of natural light and light-colored interior walls.



((4)) Street lights in other than housing areas are to be secured at 0100 nightly. 50% of all street lighting is to remain secured except in darkened areas.

((5)) Fire alarm boxes are to be lighted by 15w bulbs.

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(c) Lighting Survey. Interior or exterior lighting surveys can be requested via submission of Standard Work Request Form NAVFAC 9-11014/20 (Rev. 2-68) to the Assistant Chief of Staff, Facilities, Marine Corps Base.

(4) Water. Water production is currently at near-capacity at Marine Corps Base, Camp Lejeune and MCAS (H), New River. Thus with more new facilities constructed each year, it is imperative to conserve water.

(a) During annual periods of water shortage, watering of grass shall be terminated, plants and shrubs may be watered once a week, and vehicle washing, unless specifically terminated, will only be permitted providing a hose with positive shutoff nozzle is used.

(b) Temperatures for hot water shall not exceed 105 F except where waivers have been granted by the Assistant Chief of Staff, Facilities, Marine Corps Base or his designated representative.

(c) Water-Saving Devices. The following water saving devices are mandatory for all facilities at Camp Lejeune and New River, including quarters:

((1)) All hoses shall be equipped with self-closing nozzles. Hoses not so equipped will be confiscated.

((2)) All flushometer toilets and urinals shall be equipped with a flow-reducer flushometer insert.

((3)) All tank-type commodes shall be equipped with dike inserts to reduce flush volume by from one to two gallons. Commodes may alternatively be equipped with a dial-flush system.

((4)) All showers shall be equipped with a "Nova" brand or other approved flow-reducer showerhead to reduce shower water volume by 50%.

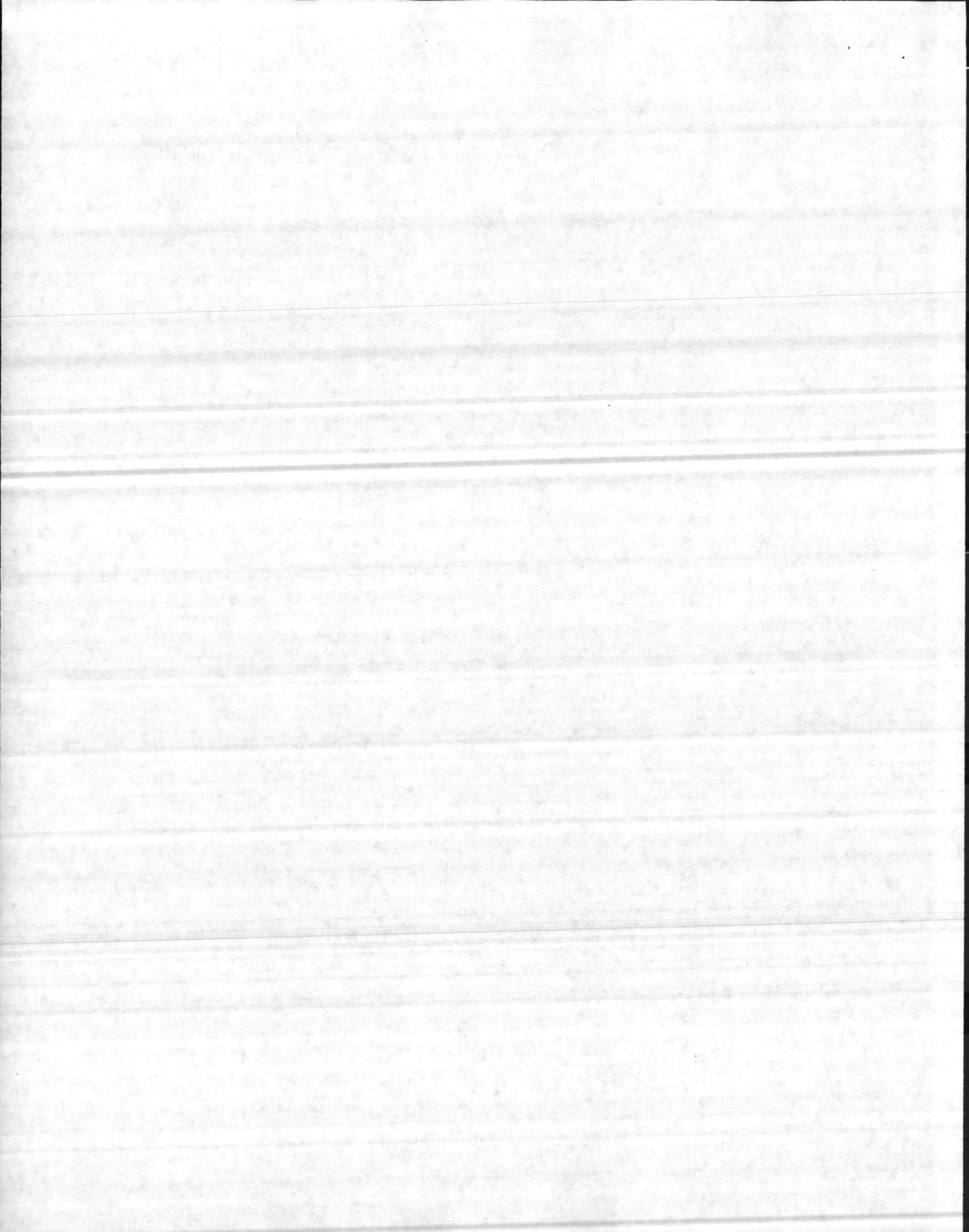
((5)) All government-owned washing machines without water level selectors shall be set so as to reduce rinse volume by no more than 4 gallons.

((6)) Hot water faucets valves in all non-family quarters sinks will be replaced with automatic shut-off valve mechanisms.

(d) Cooling Water

((1)) One-pass water cooled equipment, including ice machines and air conditioning units, is prohibited. Such equipment is to be replaced or cooling towers and a water recirculation system installed.

((2)) Cooling systems will be disconnected October through March.



((4)) Driver education classes will include instruction on fuel conservation driving techniques.

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((5)) Motor pools must assign mileage reduction goals and monitor results.

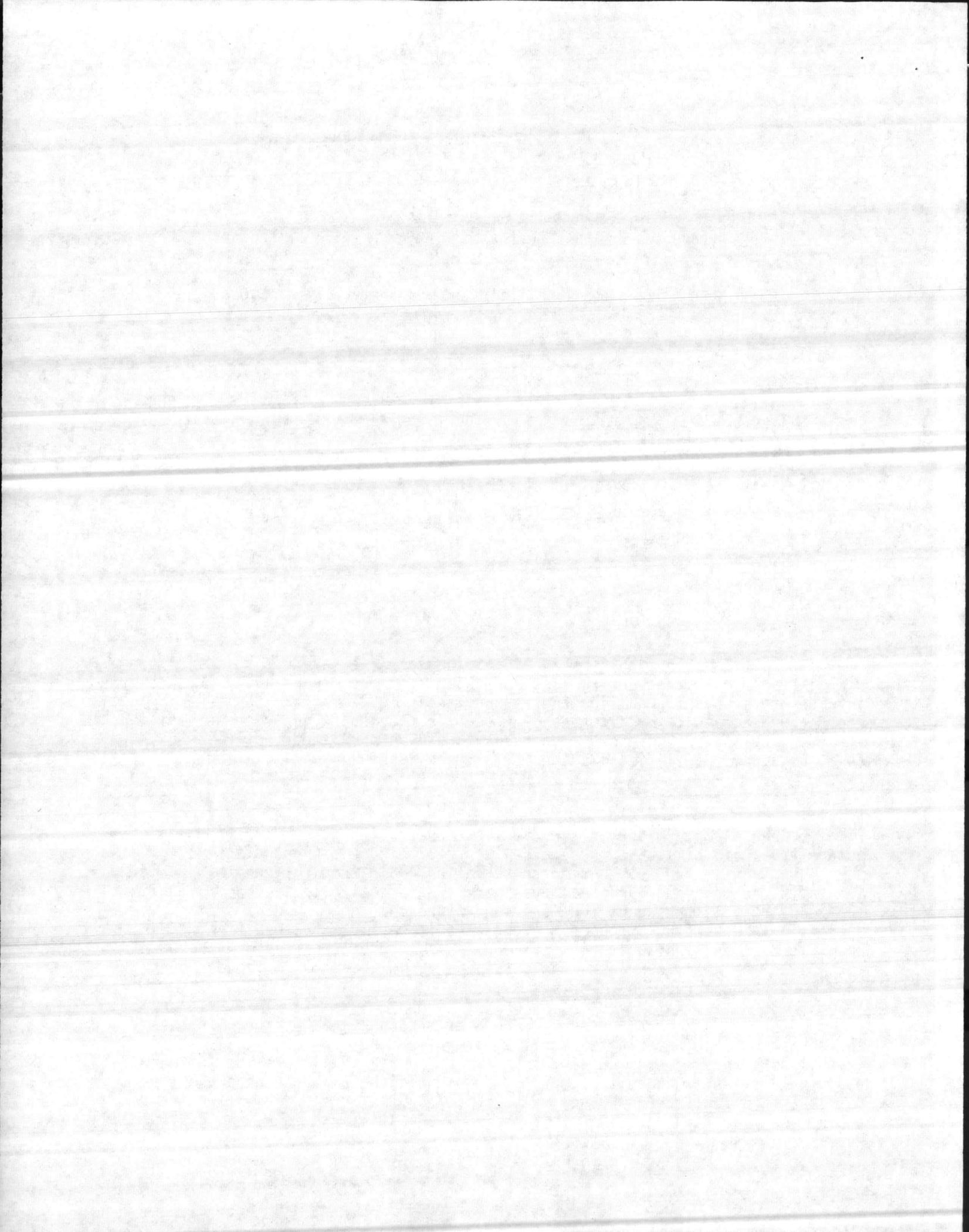
((6)) Fuel accountability shall be strictly monitored and enforced.

(i) Waivers to Conservation Standards. Temperature standards and utilization requirements established by this order and higher authority are not intended to supplant bona fide energy operating requirements established by appropriate authority or dictated by prudent safety and hygenic practices. Requests for waivers to energy standards should be submitted to the Assistant Chief of Staff, Facilities, Marine Corps Base with full justification.

#### 5. Program Management

a. General. In order to achieve the conservation goals directed by higher authority, there will have to be a solid program and visible and active commitment by all hands. Commitment to conservation goals requires that all participants in the program's progress are aware of the goals, the methods by which they can actively make contributions, and aware that a command program is aggressively supported by the commander. Additionally, the results of significant efforts by units or individuals, should be rewarded or otherwise recognized for their own contribution(s). Program accountability goes hand in hand with conservation efforts.

b. Energy Management Officer. The Energy Management Officer, Office of the Assistant Chief of Staff, Facilities, Marine Corps Base serves as the overall conservation program coordinator. As such, he will provide technical assistance or information to tenant commands at both Camp Lejeune and Marine Corps Air Station (H), New River, as required. Other responsibilities include, but are not limited to:



(3) Equipment to optimize the combustion process in the 35 boilers at Camp Lejeune and New River.

(4) Enhancement of interior and exterior lighting systems.

~~(5) Blocking windows and adding insulation in major facilities.~~

(6) Repairing and re-insulating 69 miles of steam lines.

(7) Architectual and Engineering studies of potential energy conservation projects.

(8) Various energy savings projects within Family Housing.

f. Utility Monitoring and Control System (UMACS)

(1) The UMACS is a computer base system which can:

(a) Instantaneously display the temperatures of controlled buildings.

(b) Turn on and shut off heating and air conditioning systems in order to maintain or change building temperatures to reduce the electricity or steam load.

(c) Control the temperature and chlorine level in swimming pools.

(2) Utimately, approximately 300 buildings will be controlled by UMACS. Also planned for inclusion on the system are generators which will control sewage lift stations and water pumps. Two of the most important functions of the system are it's ability to "shed" loads and set back temperatures.

(a) Load Shedding. Load shedding is the planned and timed shut-off and turn-on of air conditioning systems during peak electrical demand periods usually August. This is crucial for a few reasons:

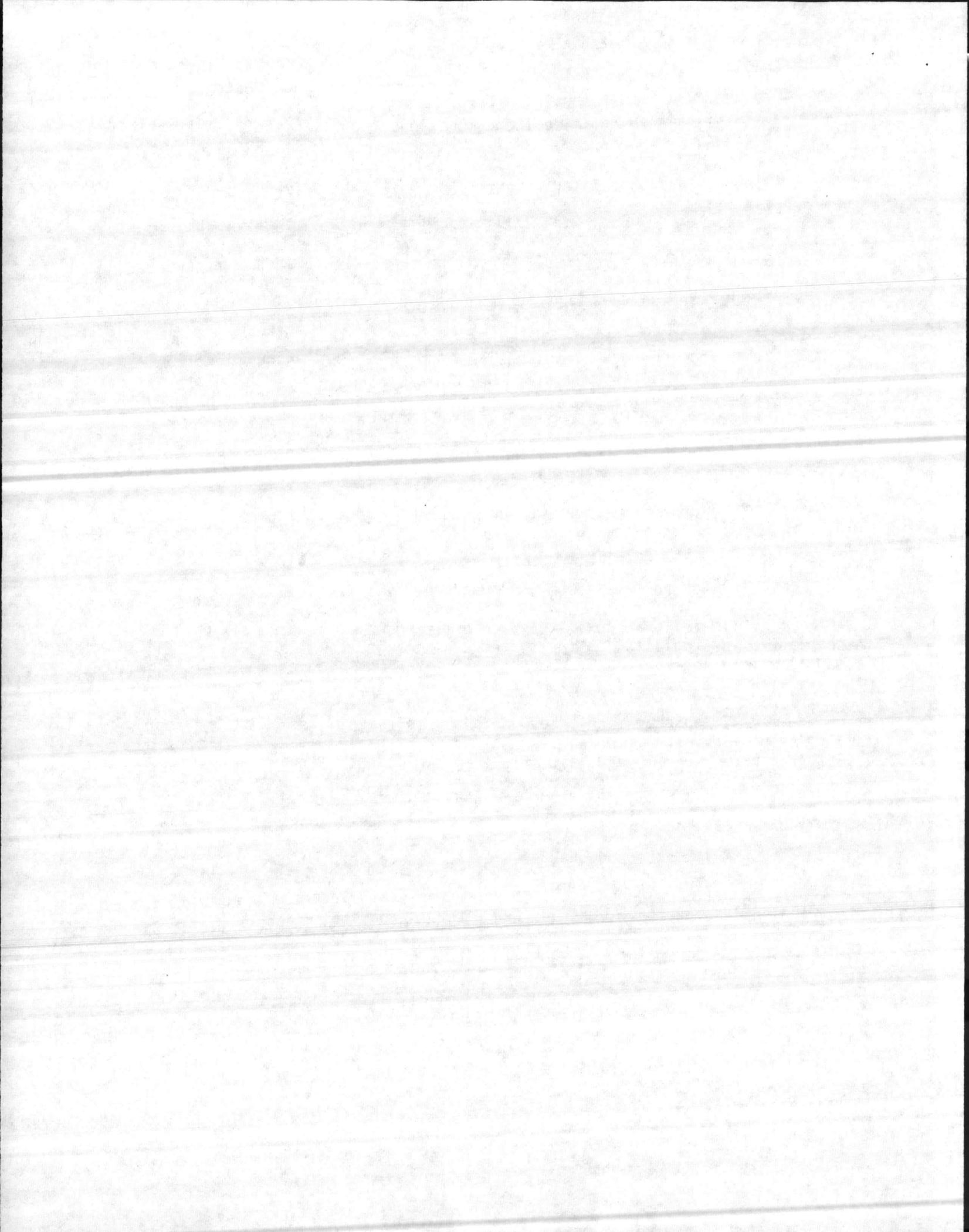
((1)) By spreading the load reduction, shut-down of air conditioning systems is only necessary for a relatively short period of time.

((2)) Demand charges are reduced to Camp Lejeune.

((3)) The possibility of shortage of electricity within the electrical grid of Camp Lejeune and New River is reduced.

(b) Temperature Setback. Temperature setback is the planned and timed reduction of heating temperatures in winter and air conditioner usage during the summer for buildings controlled by UMACS. These reductions or increases are usually accomplished between 2300 and 0400, seven days a week, and 0800 - 1500, Monday through Friday.

(c) Enclosure (4) is a list of buildings currently controlled by the UMACS system.



m. Energy Conservation Monitor Teams. To assist the Base Energy Management Officer in identifying buildings not in compliance with facility temperature restrictions, an energy conservation monitor team will make periodic visits to key air conditioned and heated buildings. On the first occasion time a building is discovered not in compliance with temperature restrictions, a "WARNING" facility discrepancy report will be issued to the unit occupying the building. After the first report, discrepancy reports will be sent to the Command Energy Management Office. Enclosure (10) is a sample of the Facilities Energy Discrepancies Report.

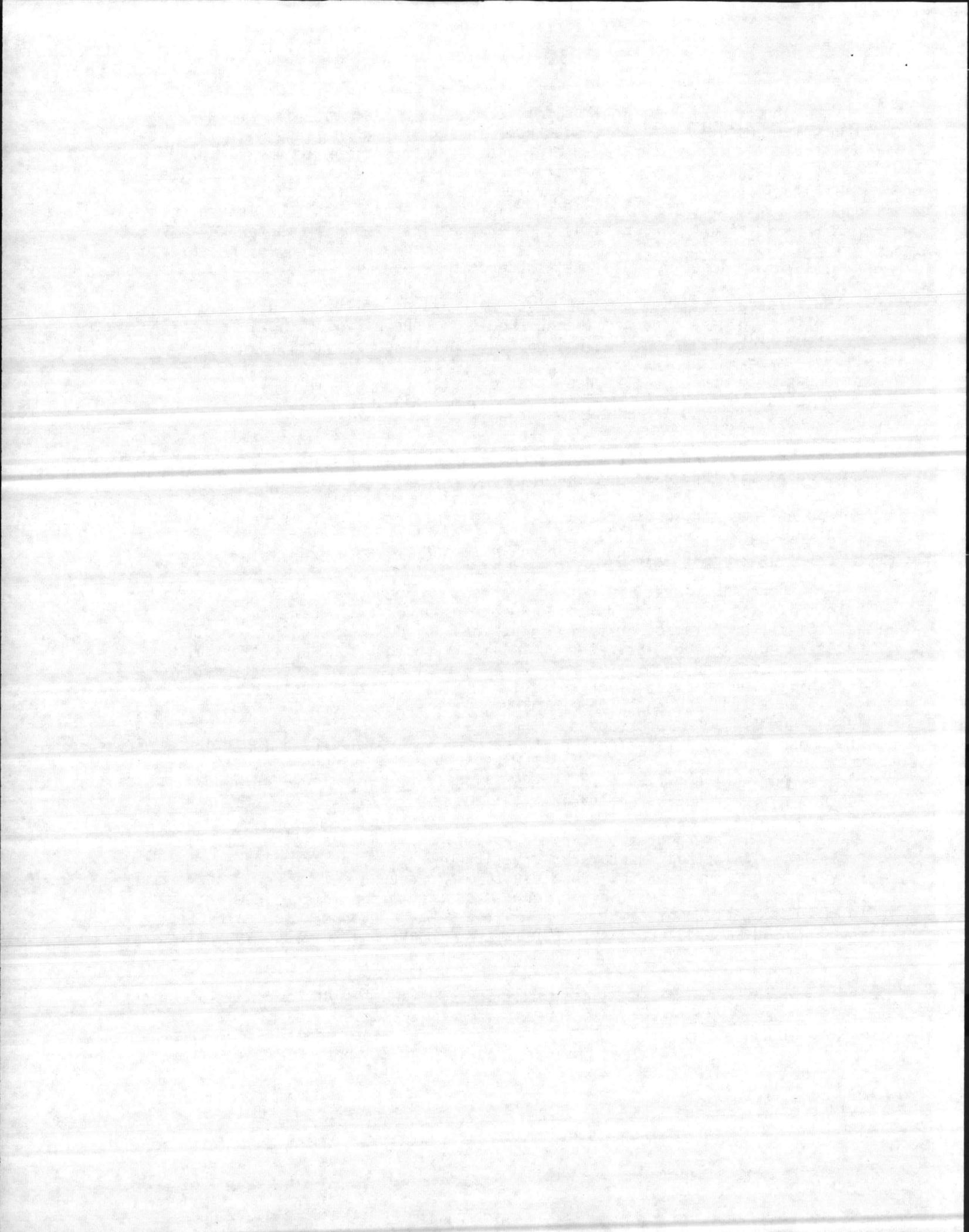
n. Energy Hotline. Anyone discovering cases of utility or energy waste through defect or negligence should telephone report the information to the Energy Hotline at 451-2544 during normal working hours. Cases of energy waste that pose immediate harm to personnel or damage to facilities or equipment such as a ruptured steam or water line or fallen electrical wires should be reported immediately, day or night, to the Emergency Service Desk, Base Maintenance at extensions 3001/3002.

o. Government Buses. Camp Lejeune and New River areas are served by commercial military government buses. The schedules should be prominently displayed on unit bulletin boards and use of the buses should be encouraged for dependents and, where possible, by unit personnel. The schedule is printed as an enclosure to the Globe and Rotor on at least quarterly basis. BO 4650.2 \_ is also a schedule of the Base Bus schedule and routes.

p. Carpool Program. A command carpool program is one of the largest potentials for fuel conservation. In cities and states where carpooling is actively encouraged, dramatic reductions in fuel consumptions are being experienced. Through the nature of military training and operations may not appear to lend themselves well to a carpool program, ingenuity and flexibility on the part of organization and units commanders can result in significant fuel savings with a minimum, if any, impact on the organization. In this regard, the most successful programs at Camp Lejeune and New River are those where a commitment to the program is clearly established and where a single office coordinates the program. A complex or sophisticated plan is not necessary. Rather, a simple logbook, is easily maintained at the battalion or squadron level.

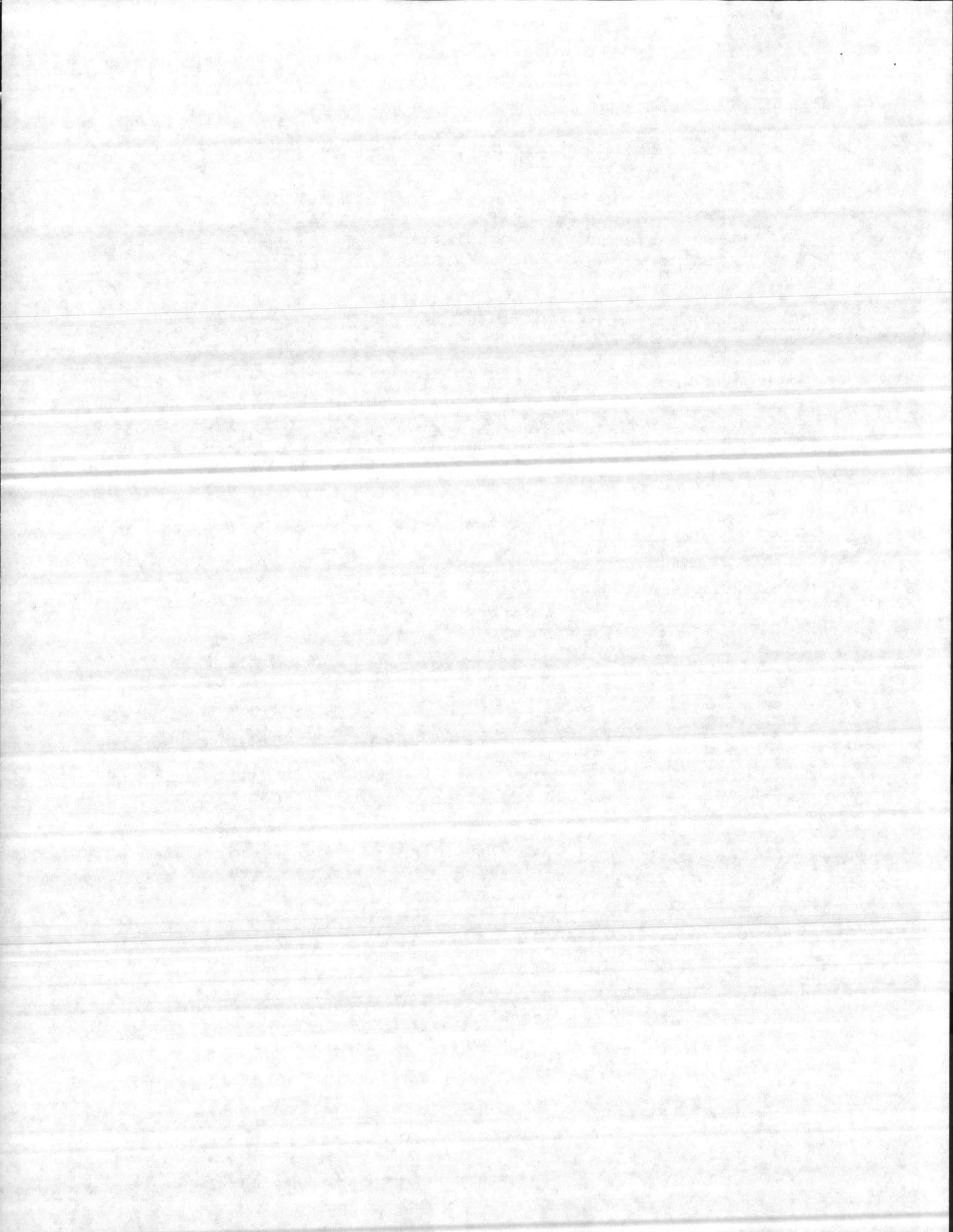
6. Technical Assistance. Technical assistance is available to Commands desiring help in their energy conservation program. For example, an energy survey may be requested for a building(s) in order to determine it's energy conservation efficiency. Such a request should be submitted, in writing, to the Assistant Chief of Staff, Facilities, Marine Corps Base (Attn: Energy Management Officer). For any other matters regarding energy conservation, contact the Energy Management Officer at phone extensions 3034/2544.

7. Action. Fleet Marine Force Commanders, Commanding Officer, Marine Corps Air Station(H), New River, Base organizational commanders and tenants will ensure that the contents of this Order are given wide dissemination within their commands and organizations upon receipt and at appropriate intervals thereafter.



FACILITY, MAINTENANCE AND CONSERVATION,  
TERMS AND DEFINITIONS

1. Area Maintenance Officer. An officer designated by the Area Commander, who is responsible for all area facilities. All routine repair/maintenance requests will be submitted to the Base Maintenance Officer, via the Area Maintenance Officer, except requests for Dining Facilities.
2. Building Monitor. An individual assigned the authority to monitor and control building temperatures. Ideally, this individual should be the unit or organization police sergeant so that he has access to facility maintenance and repair work request information.
3. Demand Charge. The amount charged by the power company for the maximum kilowatts of energy used by the customer during an interval (15 minutes). The current rate at Camp Lejeune is \$6.37 per KW.
4. Enhanced Lighting. The lighting of an area to the required level with the least amount of energy consumed.
5. Foot Candle. A measure of illuminance on a surface everywhere one foot from a source of light of one candle and equal to one lumen per square foot.
6. Kilowatt (KW). A unit of power equal to 1000 watts. Ex. Turning ten 100 watt light bulbs on for one hour would require one kilowatt.
7. Kilowatt Hour (KWH). A measure of energy consumption that is equal to using 1000 watts of energy for one hour.
8. Load Shedding. The turning off of electrical loads to limit peak electrical demand.
9. MBTU. One million British Thermal Units. One BTU is the amount of energy required to increase the temperature of one pound of water, 1 F.
10. Peak Demand. The maximum electrical load reached during a billing period. Peak Demand is usually reached during the month of August.
11. Peak Shaving. Turning off electrical loads during peak demand periods. This is usually done by intermittently shutting off air conditioner systems around base so that no one area of buildings are turned off at one time.



BUILDINGS AUTHORIZED EARLY TURN-ON OF AIR CONDITIONING

1. Centrally or window air conditioned buildings that meet the below criteria will be authorized early turn-on of air conditioning.

a. Air conditioning essential to the operation of sensitive equipment.

b. Medical and Dental Facilities.

c. Facilities which cannot be ventilated by natural or artificial air circulation, including troop housing, especially where no window screens exist.

d. Welfare and Recreation facilities.

2. The below listing of buildings are authorized early turn-on or prolonged use of air conditioning:

a. Communications or Data Processing Facilities

Bldg 1	Bldg 1101	Bldg TC-853	Bldg M-130
Bldg 24	Bldg 1116	Bldg BB-8	Bldg M-401
Bldg 751	Bldg 1202	Bldg BB-250	Bldg PT-5
Bldg 780	Bldg 1301	Bldg HP-53	Bldg RR-12
Bldg 1002	Bldg 1502	Bldg HP-55	Bldg SH-07
Bldg 1005	Bldg 1606	Bldg HP-60	Bldg 817
Bldg 1011	Bldg 4000		8 822

b. Medical and Dental Facilities

Bldg 15	Bldg 900	Bldg FC-300	Bldg H-1
Bldg 36	Bldg AS-302	Bldg FC-313	Bldg M-128
Bldg 65	Bldg BB-10	Bldg G-770	Bldg RR-11
Bldg 421			

c. Exchange Facilities

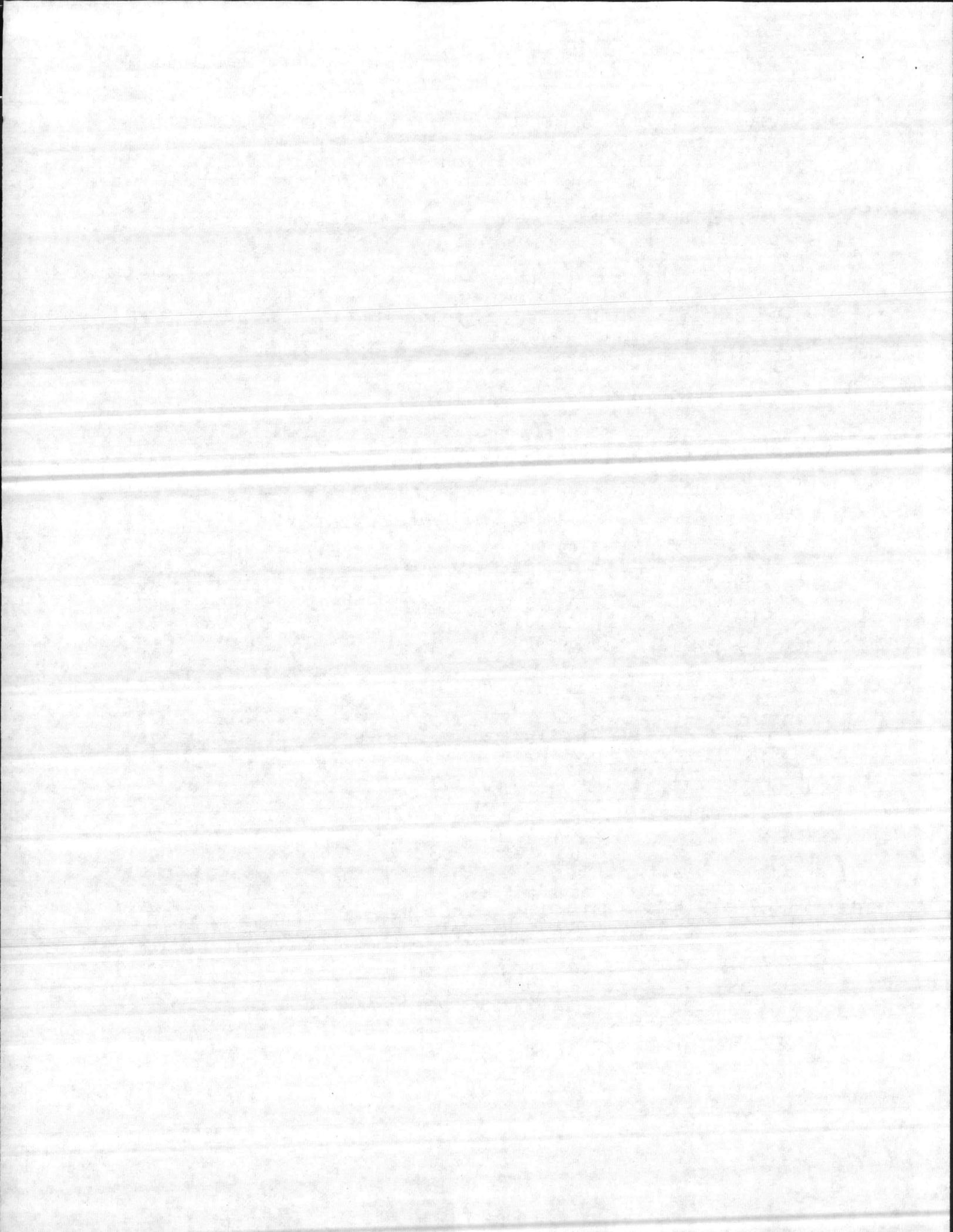
Bldg 4	Bldg 1207	Bldg BA-101	Bldg RR-10
Bldg 84	Bldg 1985	Bldg BB-3	Bldg TC-910
Bldg 225	Bldg 4014	Bldg FC-320	Bldg TT-2461
Bldg 403	Bldg AS-232	Bldg M-19	Bldg TT-2477
Bldg 1220	Bldg H-1		

d. Commissary Stores

Bldg 1200	Bldg 2455	Bldg AS-414
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e. Printing Plant

Bldg 80



UTILITY AND ENERGY CONSERVATION COMMITTEE

1. In order to coordinate an effective conservation program at Camp Lejeune and the Marine Corps Air Station (H), New River, the Utility and Energy Conservation Committee has been established. The Assistant Chief of Staff, Facilities, Marine Corps Base, is designated as Chairman, Energy Conservation Committee. In addition to the Chairman, the Utility Energy Conservation Committee will be composed of the following representatives:

Assistant Chief of Staff, G-4, 2d Marine Division, FMF  
 Assistant Chief of Staff, Ops, 2d Force Service Support Group,  
 (REIN), FMFLant  
 Chairman, Energy Conservation Council, MCAS(H), New River  
 Commanding Officer, Naval Regional Medical Center  
 Commanding Officer, Naval Regional Dental Center  
 Commanding Officer, Marine Corps Service Support Schools  
 Commanding Officer, Marine Corps Engineer Schools  
 Commanding Officer, Support Battalion  
 Commanding Officer, Headquarters Battalion  
 Commanding Officer, Rifle Range Detachment  
 Commanding Officer, Field Medical Service School  
 Commanding Officer, Infantry Training School  
 Base Maintenance Officer  
 Base Motor Transport Officer  
 Base Special Services Officer  
 Joint Public Affairs Officer  
 Director, Family Housing  
 Superintendent, Camp Lejeune Dependent' Schools

2. The Energy Conservation Committee will convene at the call of the Chairman, with administrative support provided by Marine Corps Base.

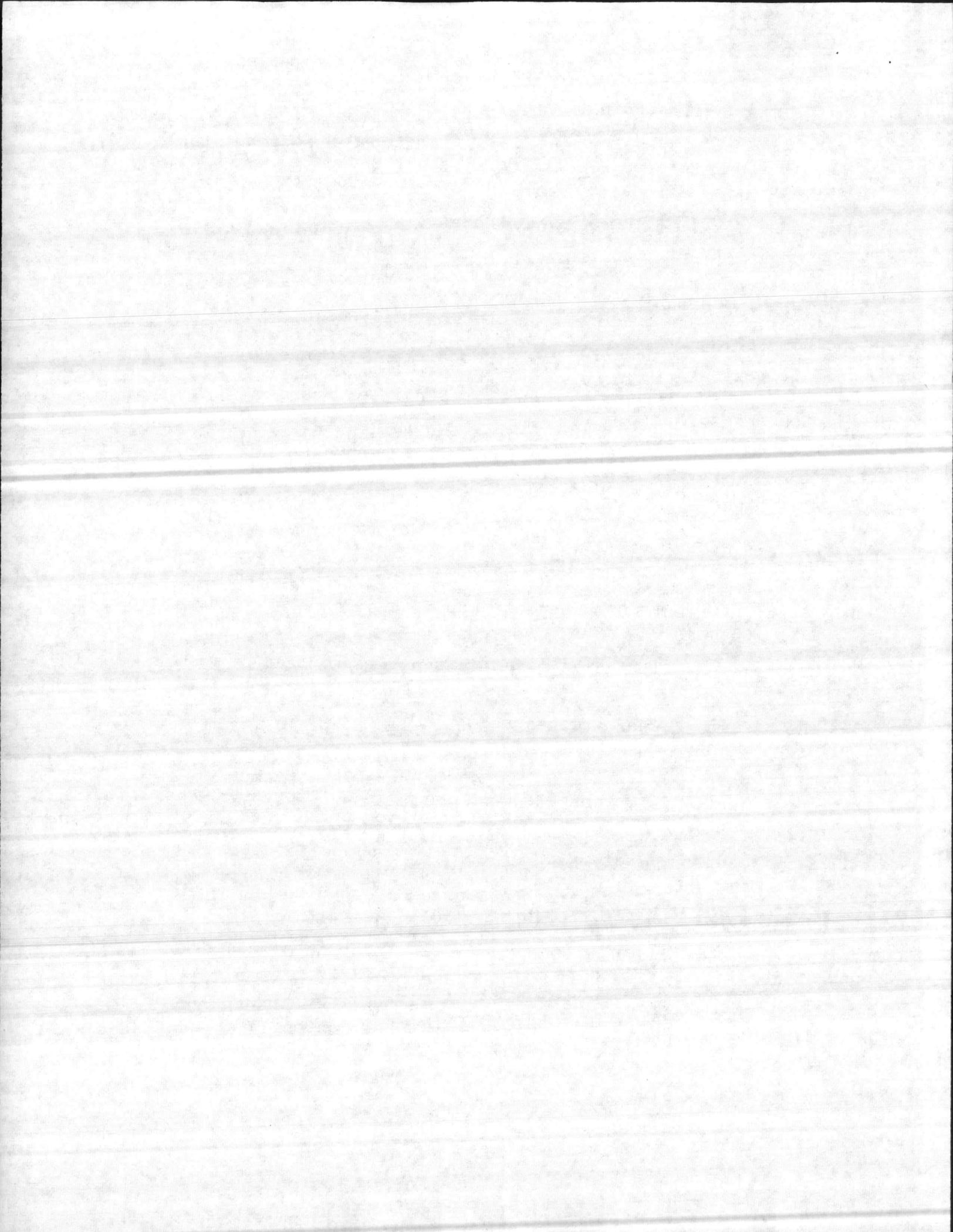
3. The Utility & Energy Conservation committee will perform the following:

a. Develop procedures which will assure the optimum utilization of energy resources and maximum savings through energy conservation programs while enabling all commands to continue their operations and training missions without compromise to military readiness, safety or effectiveness.

b. Provide implementation guidance directed toward reaching the goals established by references (a) and (b).

c. Receive Utilities and Energy Conservation comments and suggestions from command and activity representatives and make recommendations to the Assistant Chief of Staff, Facilities.

d. Disseminate Utility and Energy Conservation information.



LIST OF FACILITIES CONTROLLED BY  
UTILITIES MONITORING AND CONTROL SYSTEM (UMACS)

1. Hadnot Point Buildings

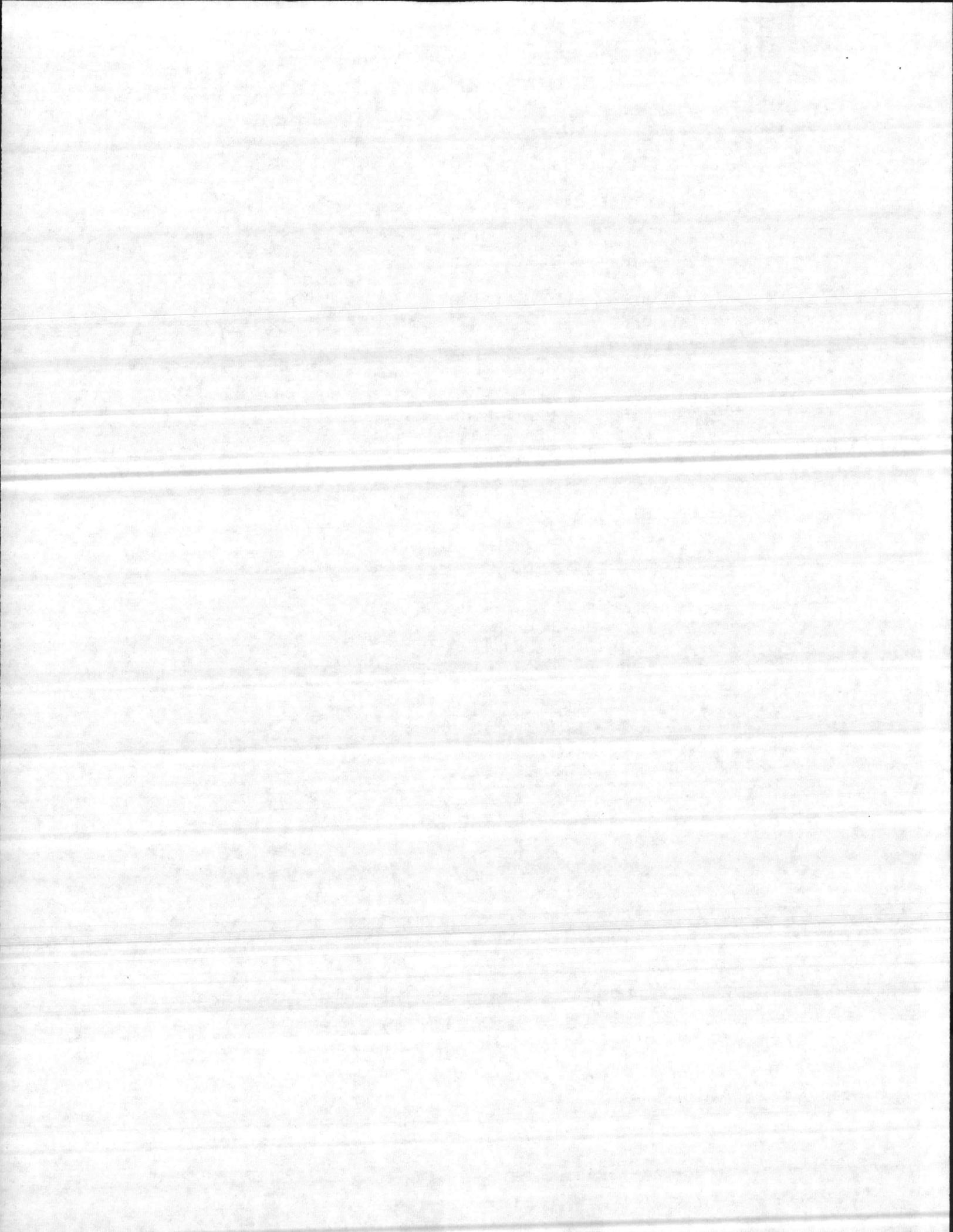
Bldg	10	Bldg	209	Bldg	321	Bldg	427
Bldg	12	Bldg	212	Bldg	323	Bldg	502
Bldg	51	Bldg	213	Bldg	326	Bldg	503
Bldg	53	Bldg	217	Bldg	327	Bldg	506
Bldg	55	Bldg	220	Bldg	404	Bldg	507
Bldg	57	Bldg	224	Bldg	406	Bldg	510
Bldg	60	Bldg	227	Bldg	407	Bldg	511
Bldg	101	Bldg	228	Bldg	409	Bldg	514
Bldg	105	Bldg	301	Bldg	410	Bldg	515
Bldg	109	Bldg	308	Bldg	412	Bldg	517
Bldg	111	Bldg	309	Bldg	415	Bldg	519
Bldg	118	Bldg	312	Bldg	417	Bldg	523
Bldg	202	Bldg	313	Bldg	420	Bldg	527
Bldg	204	Bldg	316	Bldg	422	Bldg	1140
Bldg	205	Bldg	318	Bldg	426	Bldg	1340
Bldg	208						

2. French Creek Area Buildings

Bldg	FC-304	Bldg	FC-310	Bldg	FC-413
Bldg	FC-305	Bldg	FC-311	Bldg	FC-414
Bldg	FC-306	Bldg	FC-411	Bldg	FC-415
Bldg	FC-309	Bldg	FC-412	Bldg	FC-416

3. Courthouse Bay Buildings

Bldg BB-250  
Bldg BB-255



DUTIES OF THE BUILDING MONITOR

1. The building monitor is a command, organization, unit or department member who is responsible for monitoring the energy efficient operation of a building(s). The monitor should be assigned in writing. His or her duties should include, but not be limited to the following:

a. Checking the temperature of the building(s) at least twice daily - ideally at 0800 and 1300.

b. Initiating necessary corrective action to rectify deviations from temperature guidelines.

c. Identification and Reporting of all energy conservation related maintenance and repair work to the police sergeant or S-4. In the case of a building under the cognizance of a civilian organization, this information should be forwarded to the individual who can submit a standard request for work (NAVFAC 9-11014/20 Rev. 2-68) to Base Maintenance.

d. Maintain status on all outstanding energy conservation related work requests.

e. Keep the individual who has cognizance over the building advised of all matters pertaining to the building and its occupants, compliance with temperature guidelines and other energy conservation matters. The most significant areas to monitor are the building's temperature and occupants' utility and energy consumption habits. These include but are not limited to:

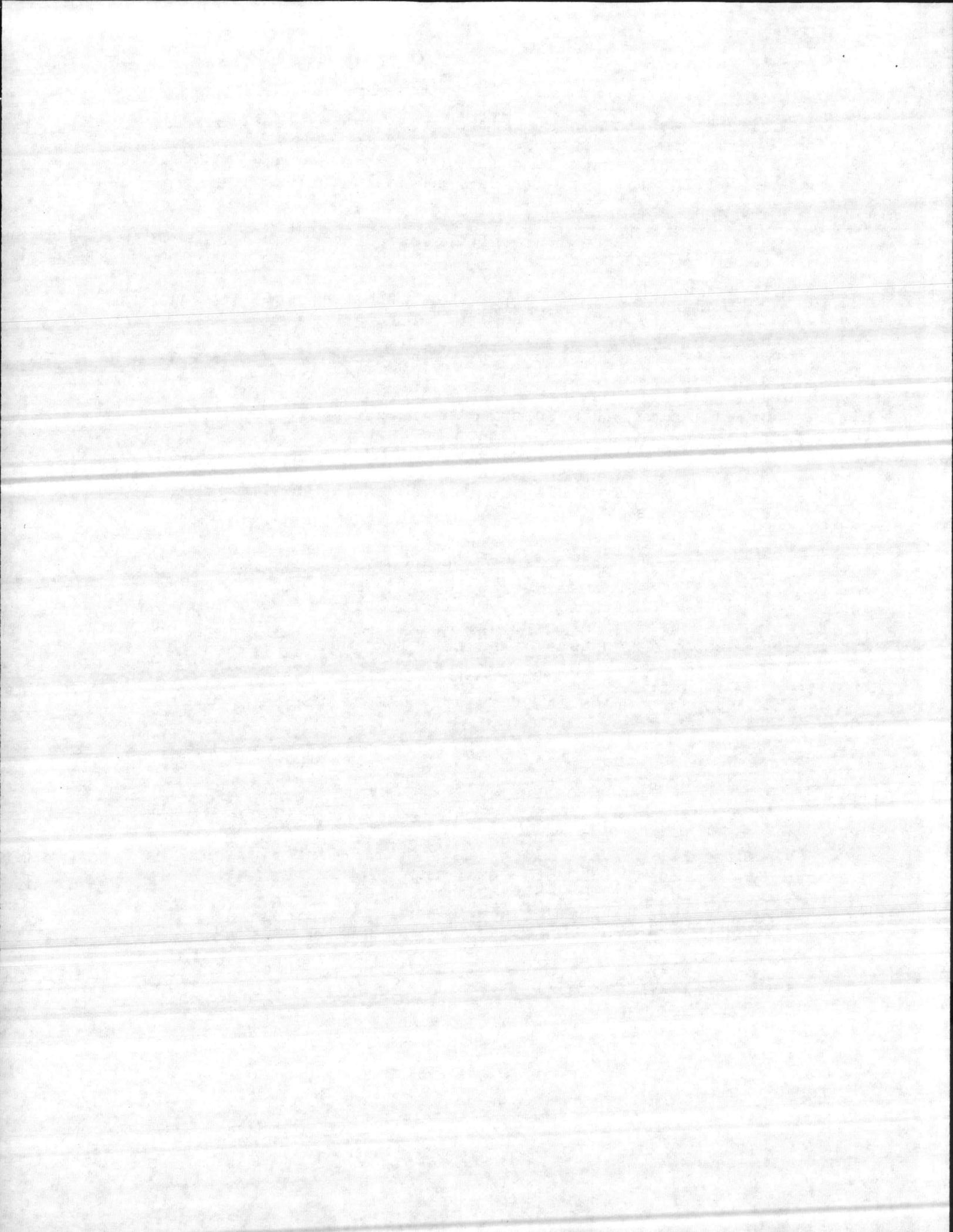
(1) Length of time it takes for showers (3-5 minutes is advised).

(2) Keeping windows and doors closed in winter and summer during heating and air conditioning season.

(3) Faucets and lights turned off when not in use.

f. Ensure that current energy conservation information is prominently displayed within the building. Minimally, this information should include the Facility Temperature Standards Notice, Carpool information and a spot where a few weekly home, vehicle or on-base energy conservation tips can be posted.

g. Attend organization or department level meetings on energy conservation.



BO 11300.1G  
DATE

FACILITY TEMPERATURE STANDARDS NOTICE

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MAXIMUM HEATING TEMPERATURE \_\_\_\_\_

MINIMUM COOLING TEMPERATURE \_\_\_\_\_

COMMAND HAVING COGNIZANCE  
OVER THIS BUILDING:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

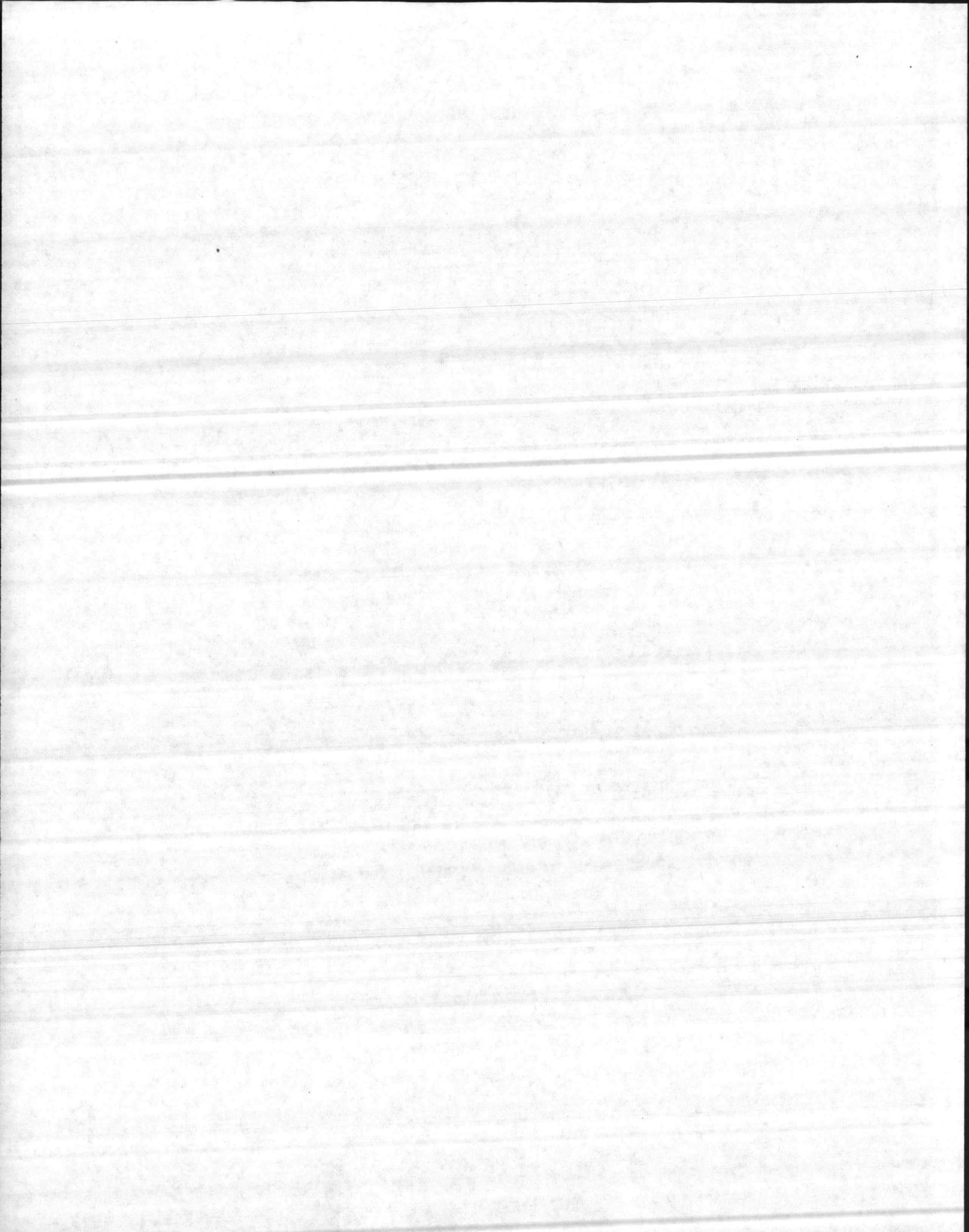
BUILDING MONITOR:

\_\_\_\_\_  
\_\_\_\_\_

TELEPHONE #: \_\_\_\_\_

EMERGENCY MAINTENANCE (BASE MAINTENANCE)

TELEPHONE NUMBER 3001 OR 3002



UTILITY AND ENERGY CONTINGENCY PLAN

1. Electricity

Condition I - 5% reduction goal in electricity. The majority of the reduction will be accomplished by the Utility Monitoring and Control System. It will stagger the shedding of air conditioning loads for brief periods of time, as required.

Condition II - 10% reduction in electricity

- a. Shut down all nonessential loads.
- b. Use of comfort air conditioning will terminate.
- c. Shut off all lighting near windows and in hallways.
- d. Shut off coffee pots, reproduction machines.
- e. Switch to mobile electric/auxiliary power for peak demand periods (1300-1630 weekdays)

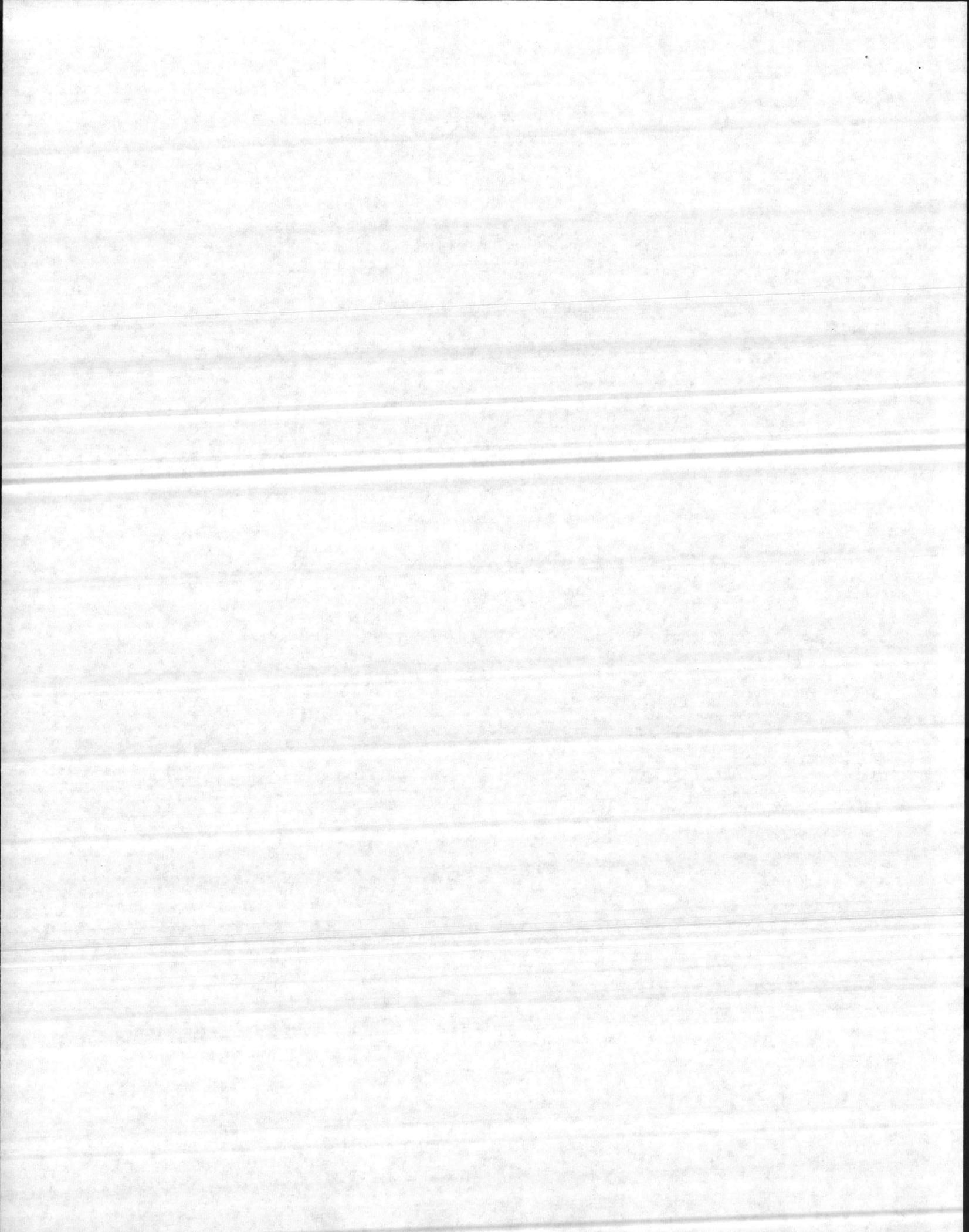
Condition III - 50% reduction or greater in electricity

- a. Shut down all nonessential loads.
- b. Use of comfort air conditioning will terminate.
- c. Commence shutdown and secure all functions not directly related to communication, security, safety and messing.
- d. Secure all building lighting during daylight hours. Absolute minimum mission-essential lighting during the hours of darkness.
- e. Declaration of energy emergency, This may warrant sending civilian personnel home.
- f. Switch to mobile electric or auxiliary power.

2. Heat

Condition I - 25% reduction in steam generating capacity

- Priority of steam distribution to messing and medical facilities.
- Heating temperatures in billeting facilities may drop considerably.



Condition IV - Severe water shortage

All of Conditions II and III, plus:

- a. Notify fire department to conserve water to include minimizing burning-off of weeded areas and use of water for training purposes.
- b. Stop all washing of vehicles on base, including buses, taxis, motor transport and personal-owned vehicles.
- c. The use of washing machines in Base quarters will be in accordance with the following once-a-week schedule:
  - Odd numbered days - Quarters with odd numbers
  - Even numbered days - Quarters with even numbers
- d. Water outages in quarters will be controlled by amount of water in storage tanks. When water reaches low level point to maintain fire protection pressure, it will be shut off until tank returns to a safe level at which time water will be restored. The fire department will be notified of areas with a water outage. Housing occupants should maintain 2 - 3 gallon water supply during this condition.
- e. Housing and UEPH/OPH occupants maintain strict water conservation practices such as minimum flushing of toilets and use of showers.
- f. Curtail use of water in industrial areas/process to maximum extent possible. Coordinate mission required high water usable operations with Base Maintenance.
- g. Set utility conservation patrols for all commands to ensure against water waste.

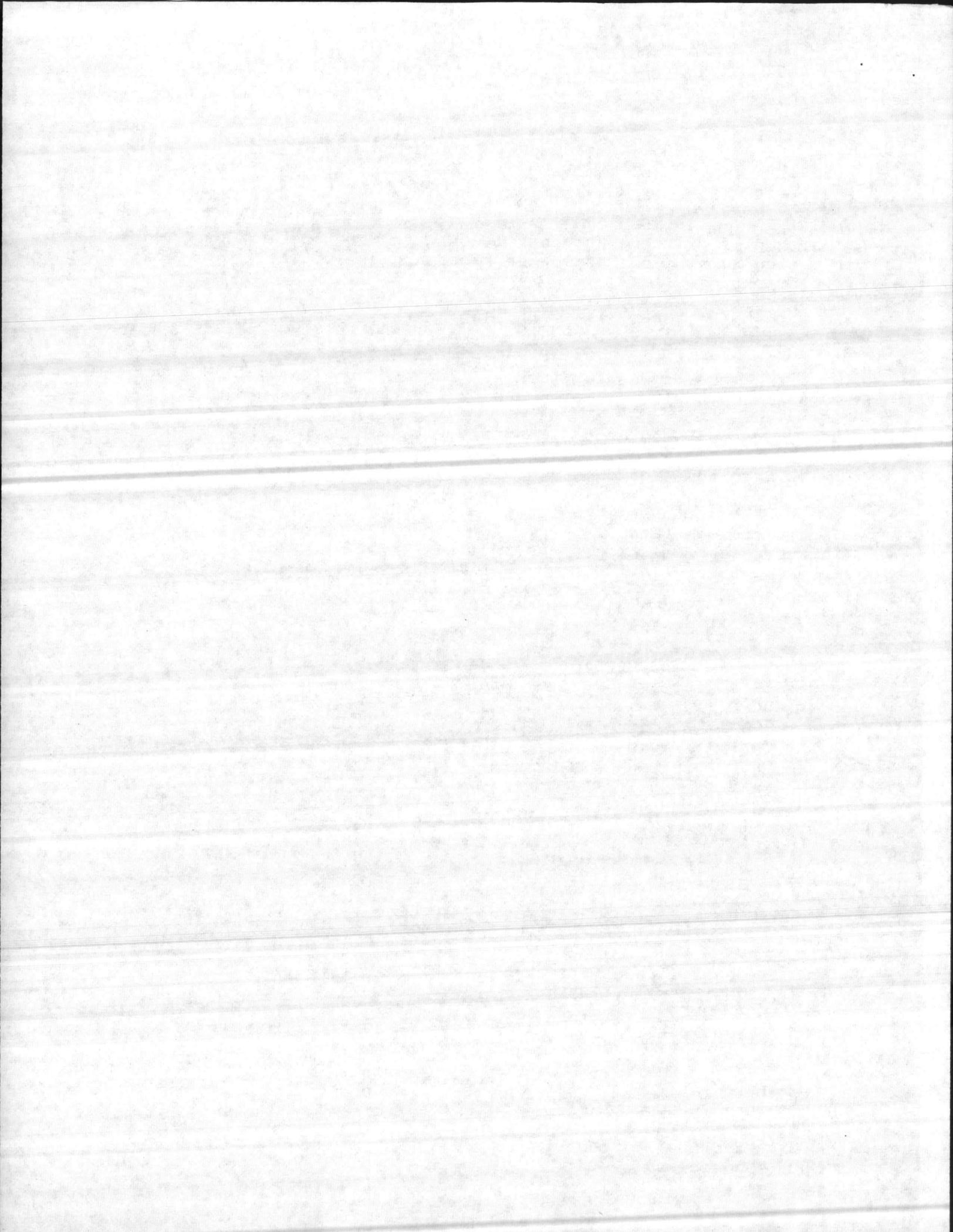
4. Vehicles

Condition I - Slight deficiency in diesel/mogas supplies of moderate duration (less than a month)

- a. Immediate reduction in all vehicle utilization (except emergency vehicles) by 20%.

Condition II - Significant deficiency on diesel/mogas supplies of moderate duration (more than a month)

- a. Immediate 50% reduction for all administrative vehicles not directly in support of fleet operations.
- b. Immediate 20% reduction of all other vehicles except emergency vehicles.



ENERGY ALERT PROCEDURES

1. An energy alert will be declared by the Base Maintenance Officer when one or more of the below conditions exist:

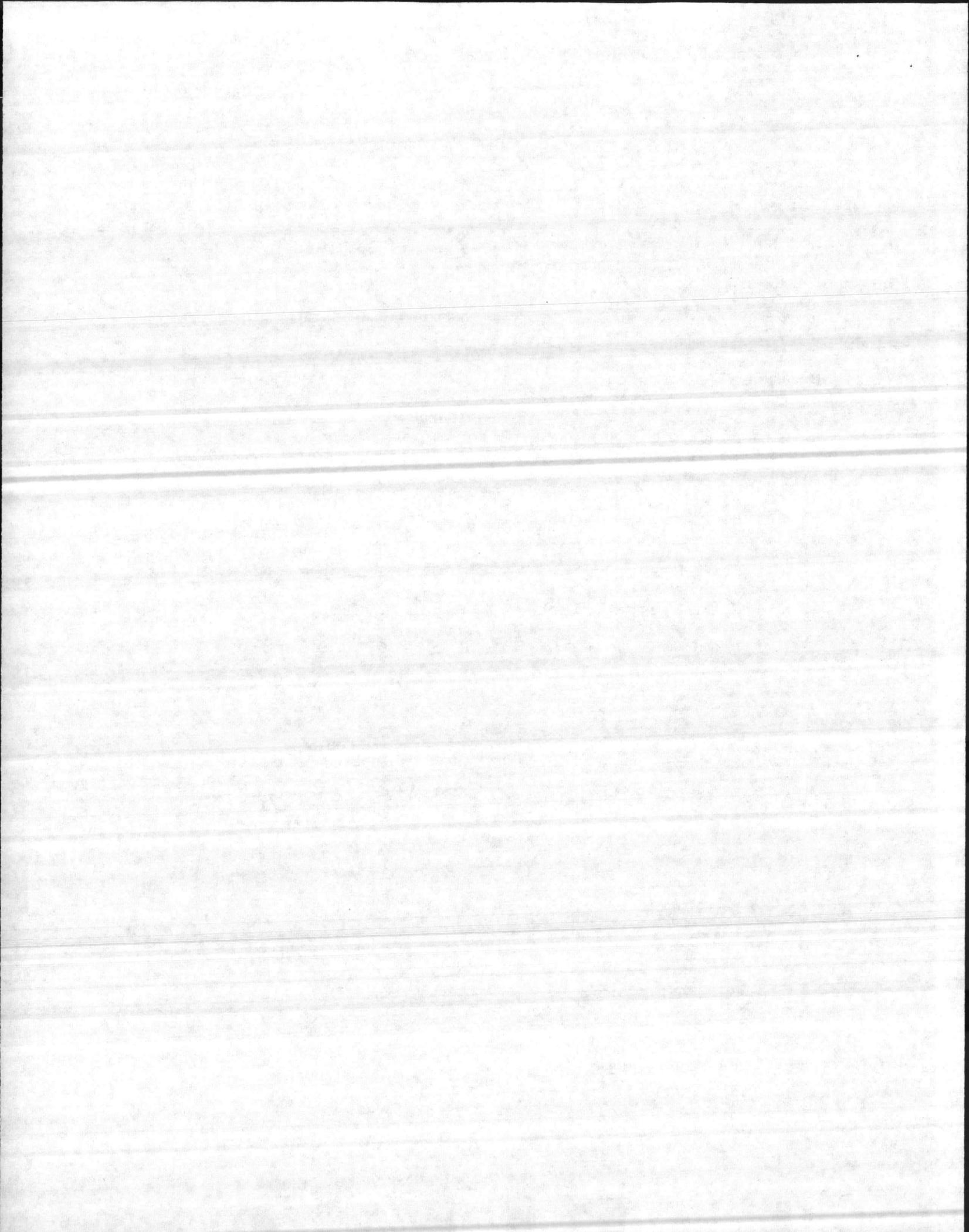
a. Temperature conditions are expected to cause the Base's demand and consumption for electricity to exceed its projected consumption peak.

b. Loss or reduction in commercial electricity due to generation problems, storm conditions or natural disaster.

2. Upon declaration of an energy alert, the below procedures or actions will be implemented:

a. Mobile Electric Power (Fleet Marine Force generators) or stationary auxiliary power will be activated and brought "on line" at the below locations upon the request of a representative of the Utility Division, Base Maintenance:

<u>Building</u>	<u>Responsible for Operation</u>	<u>POC/Telephone Number</u>
1	Comm/Elect Officer, MCB	Telephone Office 2531
PT-5	Comm/Elect Officer, MCB	OPS Officer 5802
3	PMO, MCB	OPS Officer 2555
20	Base Maintenance Officer	UtilDiv, BM 5642
22	Base Maintenance Officer	UtilDiv, BM 5642
24	Comm/Elect Officer, MCB	OPS Officer 5802
S-47A	Base Maintenance Officer	UtilDiv, BM 5642
1202	Base Maintenance Officer	UtilDiv, BM 5642
1101	OIC, Consolidated ASC	AsstOIC, 2721
BB-7	CO, MCES	S-4 Officer 7410
BB-10	CO, MCES	S-4 Officer 7410
BB-28	CO, MCES	S-4 Officer 7410
2	CG, 2d MarDiv	FacO, 2516
BB-5	CG, 2d MarDiv	FacO, 2516



Date

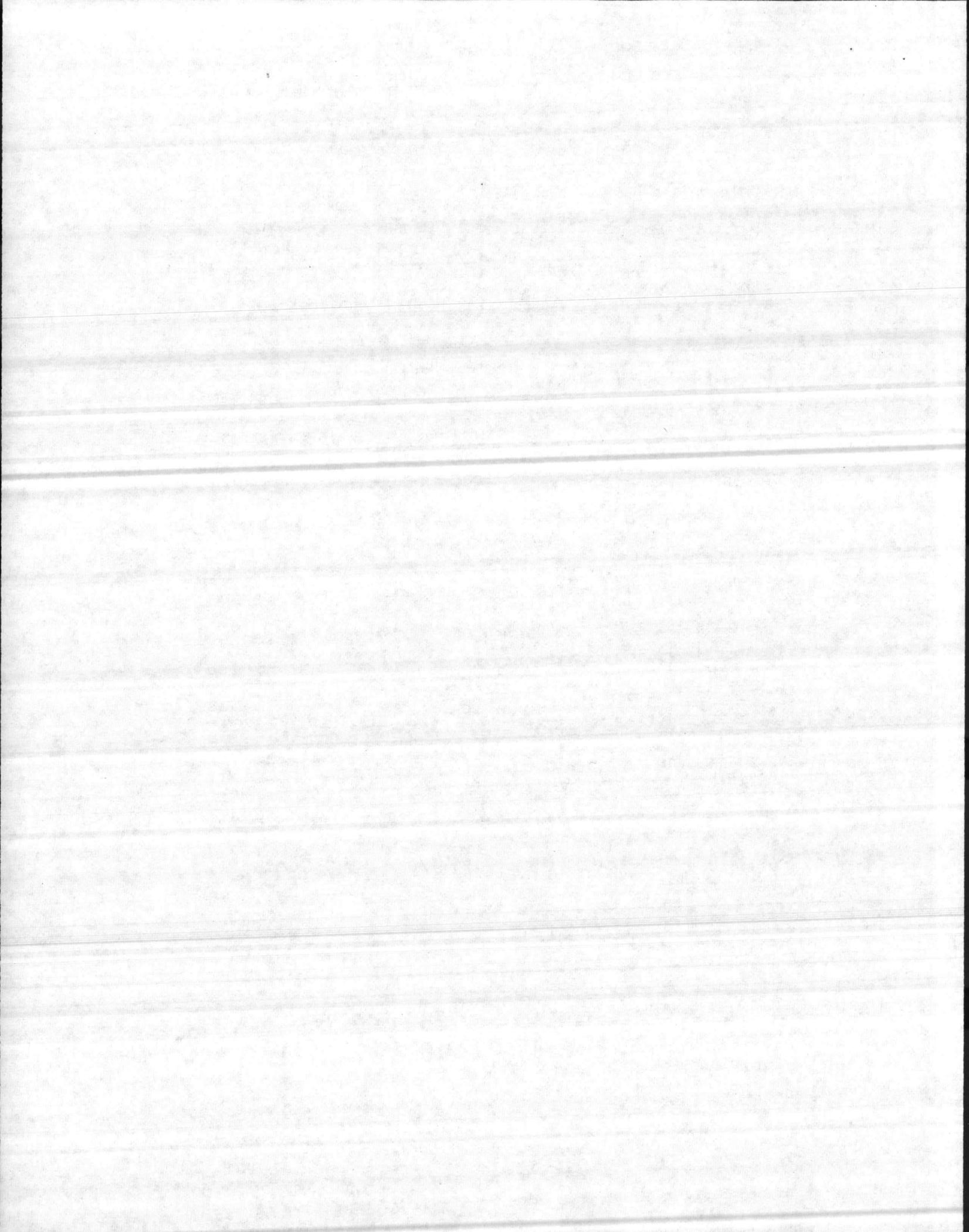
b. Start-up and shut-down times will be coordinated by a representative of the Utility Division, Base Maintenance.

c. Each major command will provide points of contact for each building with mobile electric/auxiliary power in order to enable the rapid dissemination of operational information.

d. In place "folded" Energy Alert signs will be "opened" (and "closed") at the below locations upon the advice of a representative of the Utility Division, Base Maintenance:

<u>Location of Sign</u>	<u>Responsible to Open/Close Sign</u>	<u>POC/Telephone#</u>
Main Gate	Base Maintenance	UtilDiv., BM, 5642
French Creek Area	CG, 2d FSSG	EngrSptO, 3456
Paradise Point Housing	Director, Family Hsg	EnergyConO, 3657
Entrance, Tarawa Terrace I and II	Director, Family Hsg	EnergyConO, 3657
Entrance, Courthouse Bay Area	Area Commander	S-4, MCES 7410
Entrance, Rifle Range	Area Commander	S-4, RRDet 7186
Entrance, Montford Point	Area Commander	S-4, MCSSS 6142
Entrance, Camp Geiger	Area Commander	Deputy for Camp Affairs 0216

e. All fuel costs associated with generator operation will be borne by the Commanding General, Marine Corps Base.



UTILITIES AND ENERGY COMMAND INSPECTION FORM

A. Command Program

1. Is an Energy Conservation Officer assigned in writing? \_\_\_\_\_

2. Does the command have all pertinent Utility and Energy Conservation Orders/Bulletins/Messages? \_\_\_\_\_

MCO 4100.4A \_\_\_\_\_

BO 11300.1G \_\_\_\_\_

3. Does the command have a Unit directive on Utility or Energy Conservation? \_\_\_\_\_

4. Has the command assigned Energy Conservation Coordinators for Divisions/Sections? \_\_\_\_\_

5. Has the command assigned Energy Conservation Monitors for each building? \_\_\_\_\_

6. Management of buildings within command's jurisdiction: \_\_\_\_\_

a. How many buildings are on the Base Plant Account for this unit? \_\_\_\_\_

b. How often is each building visited? \_\_\_\_\_

c. Does the command have knowledge of which buildings are heated and cooled (e.g., central air, radiator, space heaters)? \_\_\_\_\_

d. Does the command have knowledge of which buildings are controlled by the Utility Monitoring and Control System? \_\_\_\_\_

7. Carpool Program \_\_\_\_\_

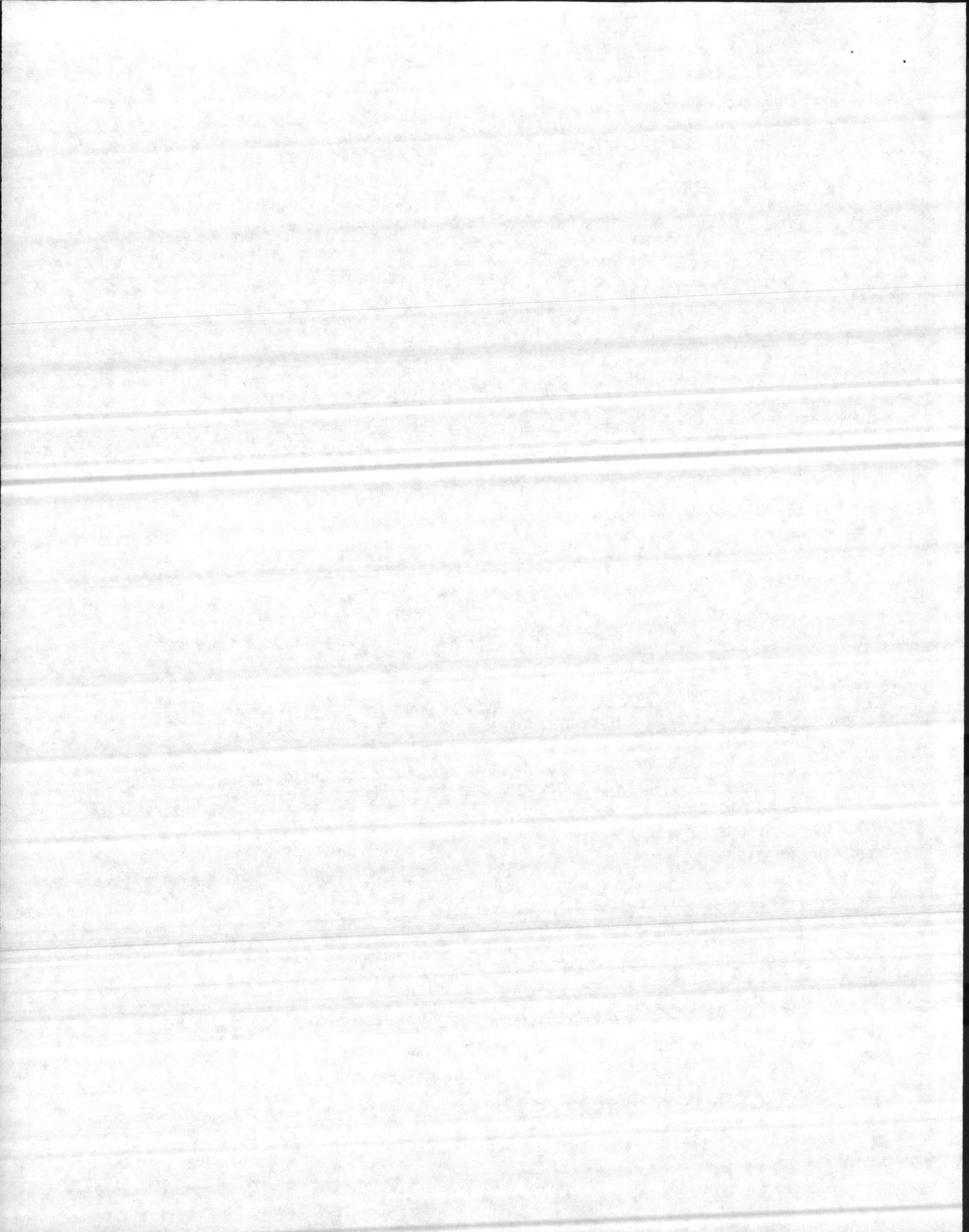
a. Does the command actively sponsor a carpool program? \_\_\_\_\_

b. How is it administered? \_\_\_\_\_

8. Has the command requested Energy Inspections for it's major buildings? \_\_\_\_\_

9. Are there any incentives or awards for Energy Conservation ideas? \_\_\_\_\_

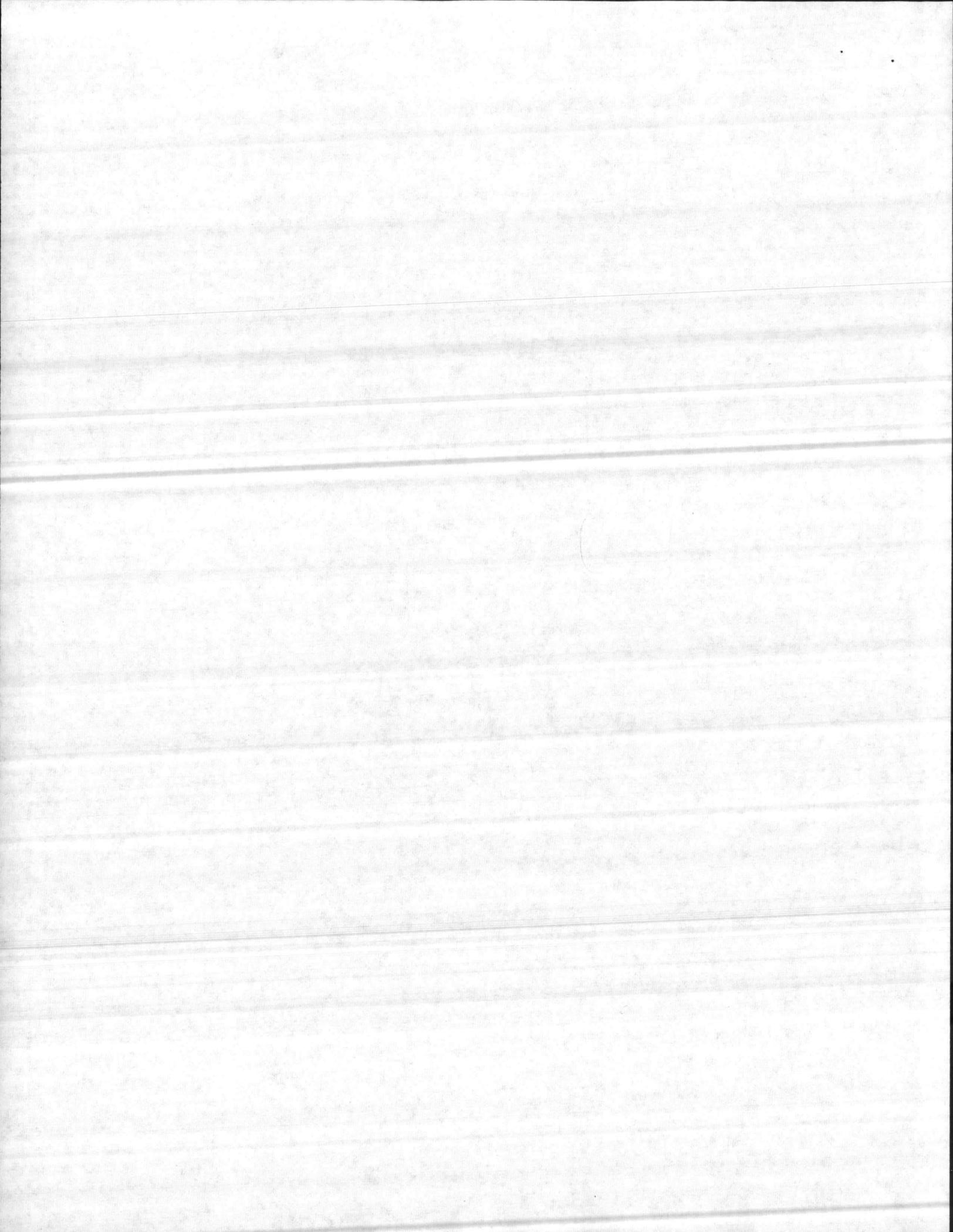
10. Is the command aware of any energy conservation projects scheduled within it's area? \_\_\_\_\_



B. AWARENESS

1. Is Energy Conservation information promulgated? \_\_\_\_\_
  - a. How? \_\_\_\_\_
  - b. When? \_\_\_\_\_
  - c. Where? \_\_\_\_\_
2. Are energy conservation meetings held for principal energy conservation personnel? \_\_\_\_\_
  - a. How? \_\_\_\_\_
  - b. Where? \_\_\_\_\_
  - c. Are records (MINUTES) kept of meetings? \_\_\_\_\_
3. Are temperature standard notices posted in buildings? \_\_\_\_\_

Is the information current \_\_\_\_\_
4. Are temperature readings taken in buildings? \_\_\_\_\_
  - a. How often? \_\_\_\_\_
  - b. By whom? \_\_\_\_\_
5. Are the 65 /68 and 78 temperature guidelines being adhered to? \_\_\_\_\_

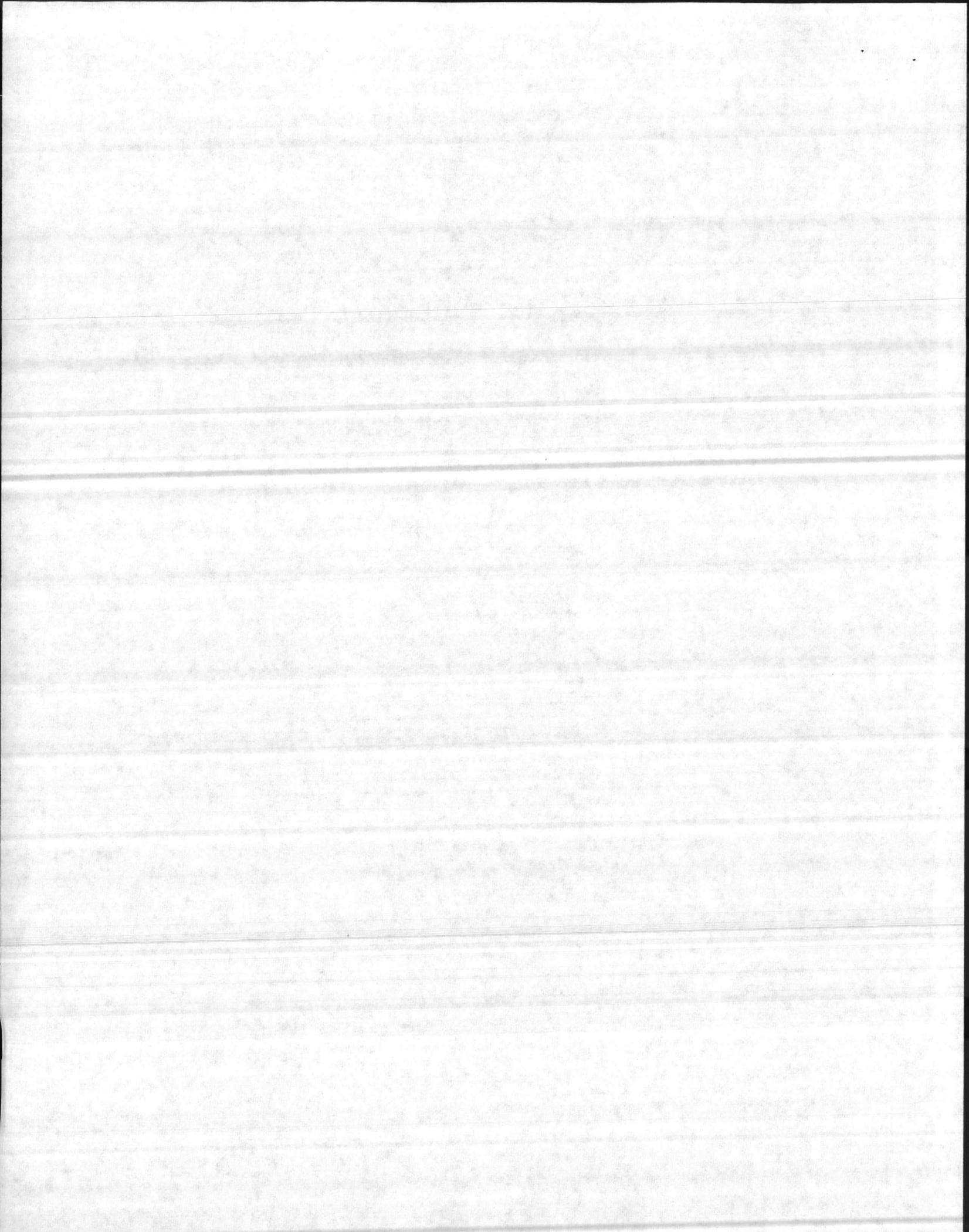


D. Heating

1. Are thermostats dependable, properly set and locked? \_\_\_\_\_
2. Are heat levels too high in the building? \_\_\_\_\_
3. Are spaces unnecessarily heated? \_\_\_\_\_

---

4. Are window or doors left open? \_\_\_\_\_
5. Are areas heated by space heaters where a central heat unit should be used? \_\_\_\_\_
6. Are spaces without thermostats that should have them? \_\_\_\_\_
7. Number of UMACS heat sensors? \_\_\_\_\_
8. Are Building/Rooms too cold? \_\_\_\_\_



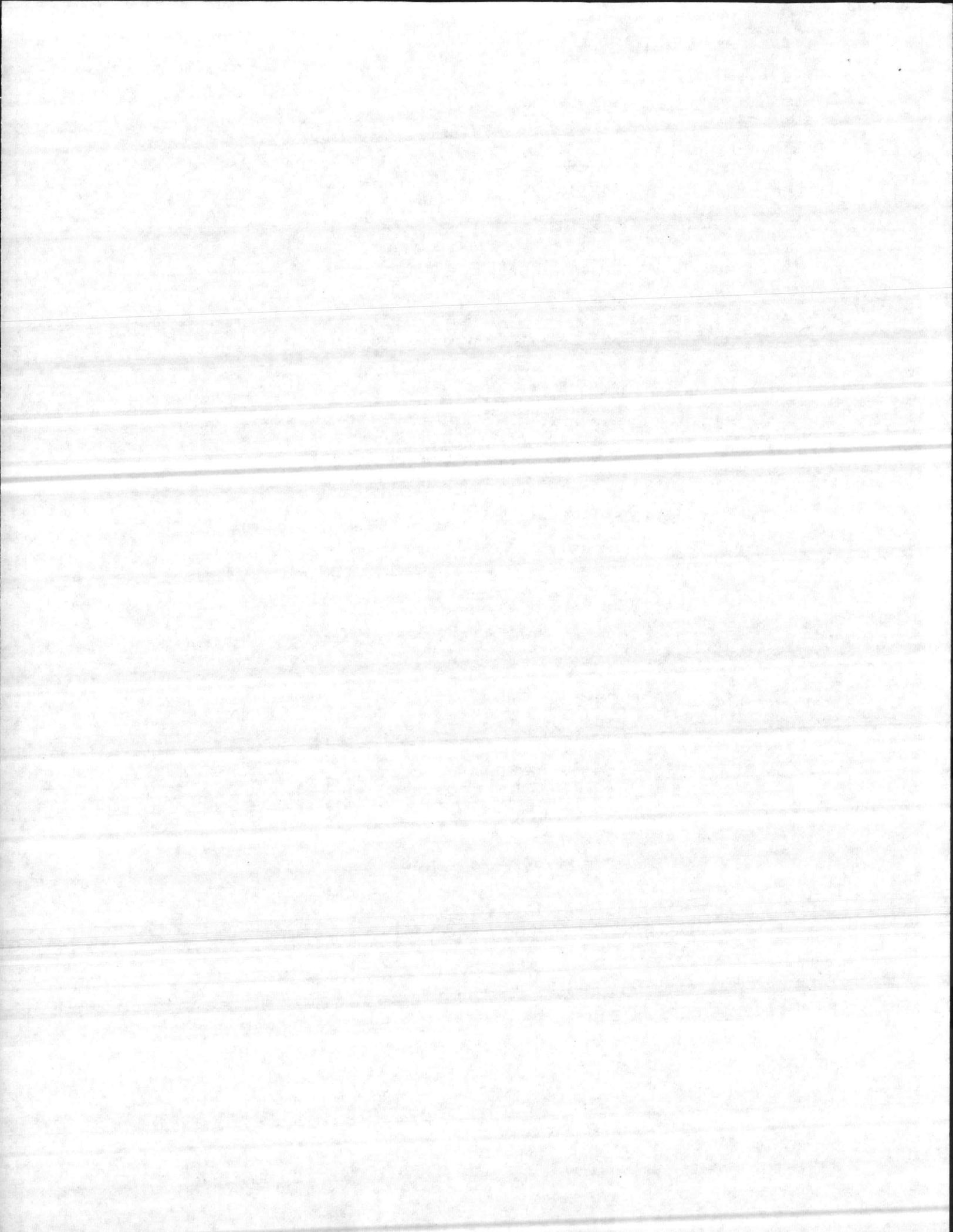
F. Electricity

1. Lighting

- a. Are light levels correct for the task? \_\_\_\_\_
- b. Are unused lights turned off? \_\_\_\_\_
- c. Are fixtures, bulbs and tubes clean and operating? \_\_\_\_\_
- d. Is switching flexible to permit shutoff of unneeded lights; for example, near windows? \_\_\_\_\_
- e. Are show window lights shut off? \_\_\_\_\_
- f. Would timer controls help cut light use? \_\_\_\_\_
- g. Are all outdoor lights (except security lights) off? \_\_\_\_\_
- h. Are walls and ceilings light-colored? \_\_\_\_\_  
Clean? \_\_\_\_\_
- i. Is daylight used as much as possible? \_\_\_\_\_
- j. Could more efficient light sources be installed? \_\_\_\_\_
- k. Are lamps replaced on a group basis? \_\_\_\_\_

2. Heating

Are electric space heaters utilized? \_\_\_\_\_



## II. Structure

### 1. Windows and Outside Doors

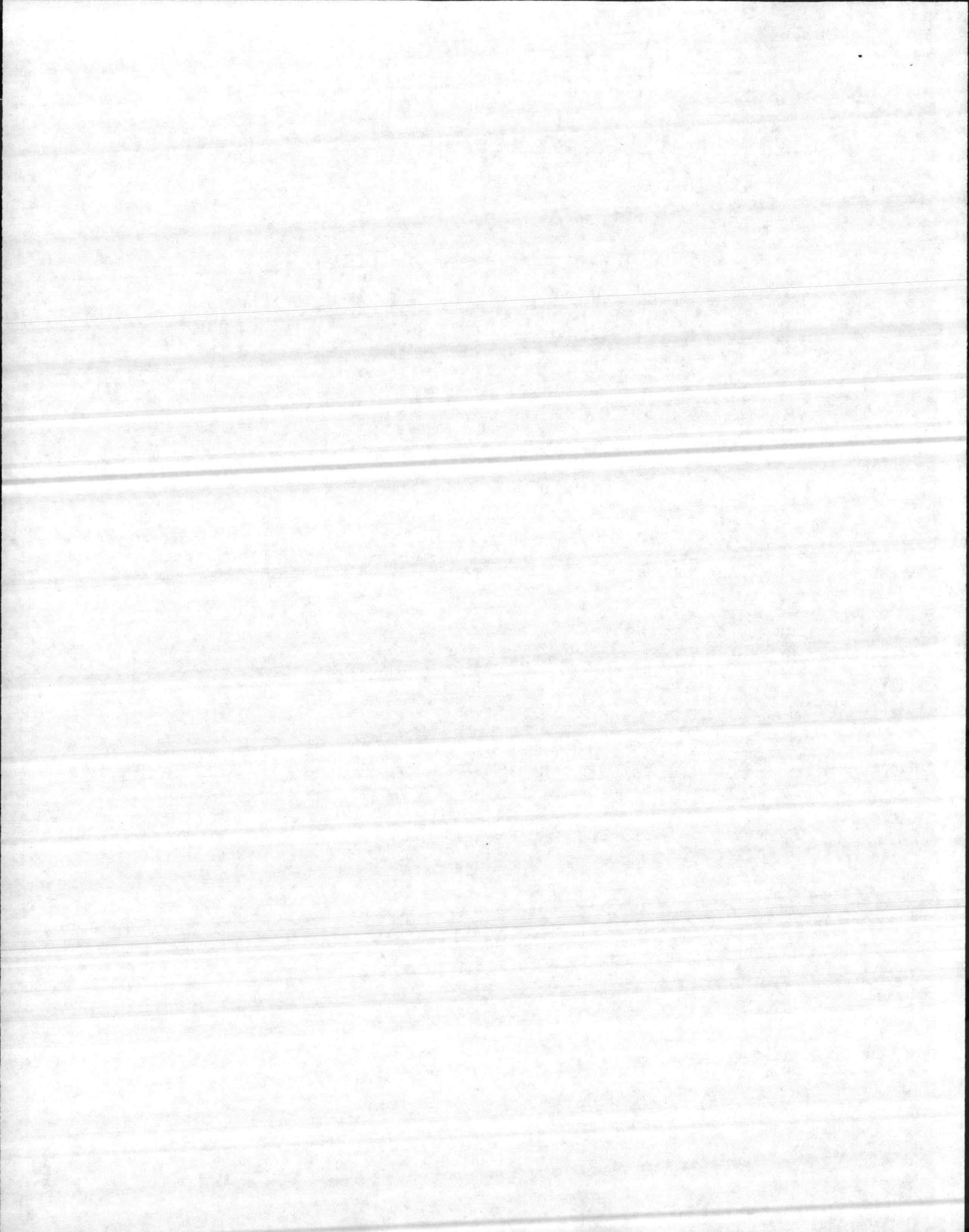
- a. Do they fit? \_\_\_\_\_
- b. Are they weatherstripped and caulked? \_\_\_\_\_

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- c. Can automatic door closers be installed? \_\_\_\_\_
- d. Are glass panes intact and tightly installed? \_\_\_\_\_
- e. Are drapes used effectively? \_\_\_\_\_
- f. Could vestibules be built? \_\_\_\_\_
- g. Could any windows be replaced by glass block? \_\_\_\_\_
- h. Would double-insulating glass be justified? \_\_\_\_\_

### 2. Construction

- a. Is insulation adequate and properly installed? \_\_\_\_\_
- b. Are all possible uses made of insulation? \_\_\_\_\_
- c. Would the addition of partitions permit reducing heated spaces? \_\_\_\_\_
- d. Are there any cracks to be caulked and sealed? \_\_\_\_\_



Date

FACILITY ENERGY DISCREPANCY REPORT

Date

1. On a Routine/Return Inspection of Building \_\_\_\_\_ the  
below discrepancy (cies) was/were noted:

a. Building Temperature

\_\_\_\_\_ Too High

\_\_\_\_\_ Too Low

b. Windows Open

c. Doors Open

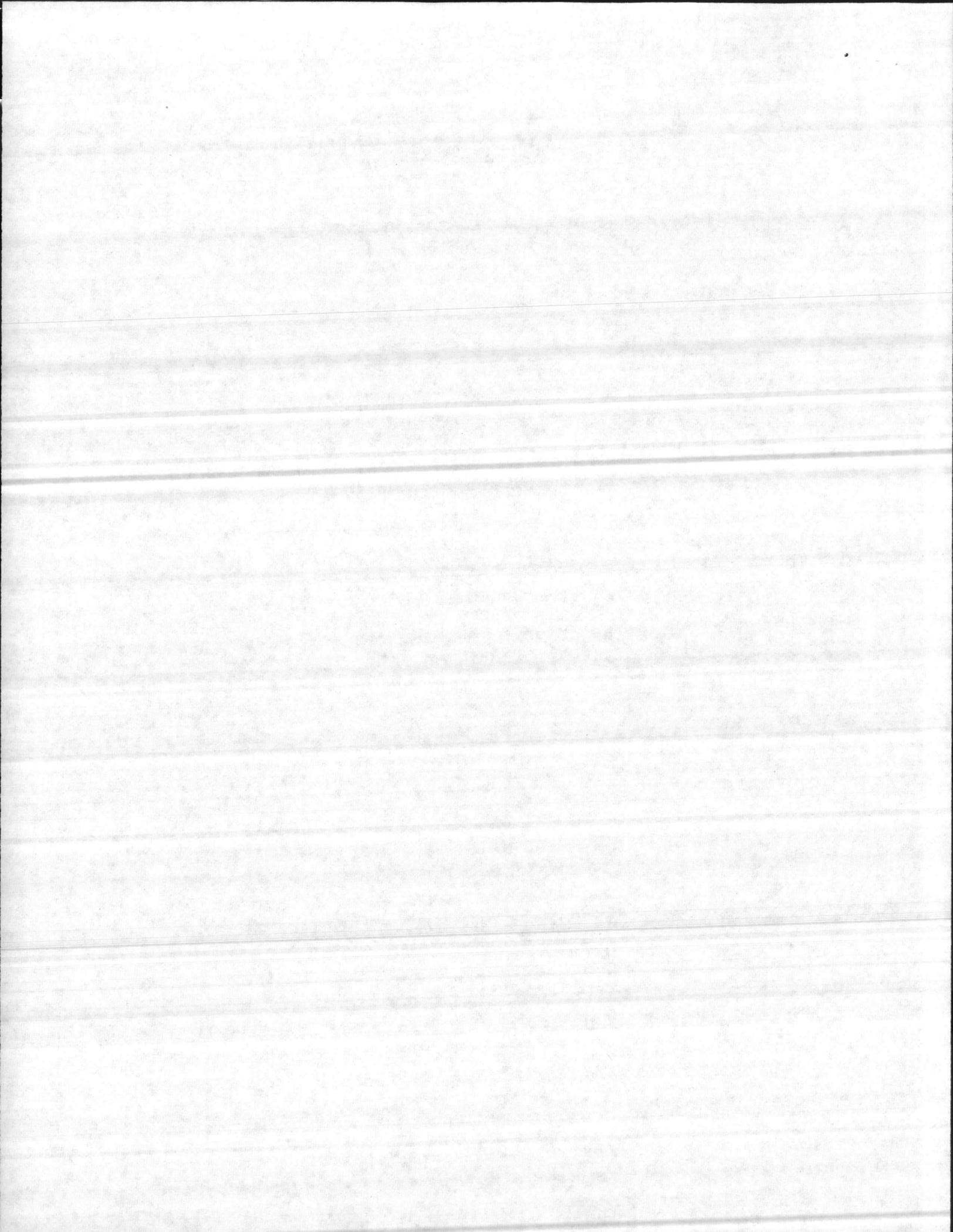
d. Lights left on after hours

e. Other

2. This is the \_\_\_\_\_ notice.

3. It is requested that the above discrepancy (cies) be corrected as expeditiously as possible. Remember, money saved due to Utility and Energy Conservation efforts can be utilized to buy such things as new 782 gear or personal support equipment like beds, chairs and desks for barracks.

Signed \_\_\_\_\_





UNITED STATES MARINE CORPS  
MARINE CORPS BASE  
CAMP LEJEUNE, NORTH CAROLINA 28542

IN REPLY REFER TO  
FAC/JAM/joh  
11300  
31 Mar 1982

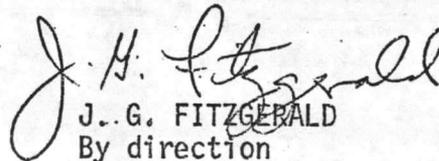
From: Commanding General  
To: Distribution List

Subj: Final Proposed Draft; Base Order 11300.1G

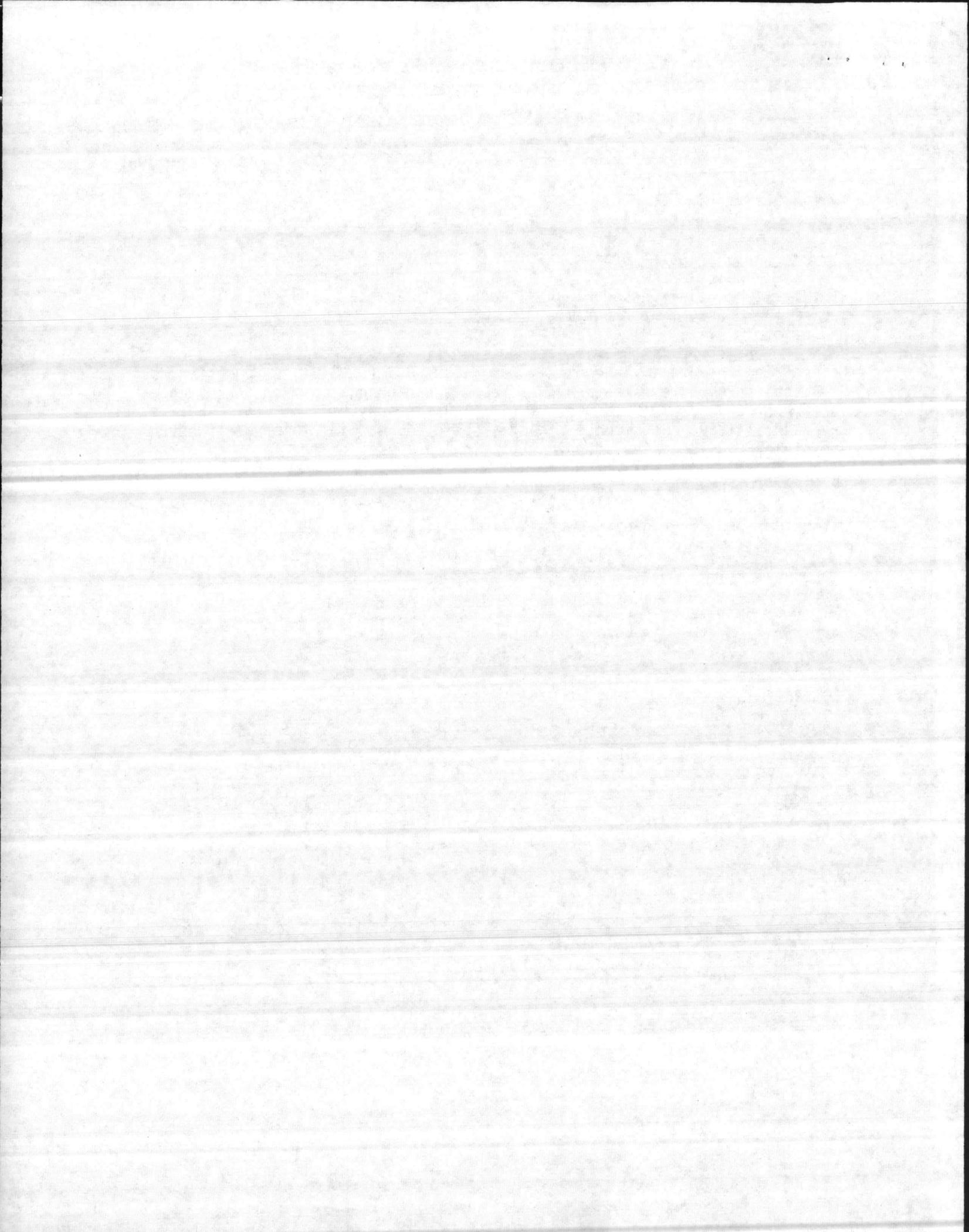
Encl: (1) Final Proposed Draft; Base Order 11300.1G, Utility and Energy Management Program

1. The enclosure is the final proposed draft of the Marine Corps Base Order concerning the Utility and Energy Management Program. It is requested that the enclosure be reviewed and that recommended changes and/or concurrence be forwarded to this Headquarters (Attn: Assistant Chief of Staff, Facilities) by 7 April 1982. Recommended changes solicited earlier this year (where possible) have been included in this final proposed draft.

2. For further information or assistance on this proposal, please contact Major J. A. MARAPOTI, Office of the Assistant Chief of Staff, Facilities, at extensions 3034/2544.

  
J. G. FITZGERALD  
By direction

DISTRIBUTION:  
CG, 2d MarDiv  
CG, 2d FSSG  
CO, MCAS(H), NR  
BMO



BASE ORDER 11300.1G

From: Commanding General  
To: Distribution List

Subj: Utilities and Energy Management Plan

Ref: (a) Federal Property Management Regulations, Section 116-3 (NOTAL)  
(b) MCO 4100.4A (NOTAL)

Encl: (1) Facilities, Maintenance and Conservation Terms and Definitions  
(2) Early Turn-on of Air Conditioning  
(3) Utility and Energy Conservation Committee  
(4) List of Buildings currently controlled by the Utility Monitoring and Control System  
(5) Duties and Responsibilities of Building Monitors  
(6) Facility Temperature Standards Notice (SAMPLE)  
(7) Utility and Energy Contingency Plan  
(8) Energy Alert Procedures  
(9) Utilities and Energy Command Inspection Form (SAMPLE)  
(10) Facility Energy Discrepancy Report (SAMPLE)

1. Purpose. To establish the utilities and energy conservation policy, goals, program and contingency plan for Marine Corps Base, Camp Lejeune, Marine Corps Air Station (Helicopter), New River, and their tenants, in order to achieve a continuing reduction in energy consumption, eliminate wasteful energy usage while enabling all commands to continue their operations and training missions without compromise to military readiness, safety, or effectiveness.

2. Cancellation. BO 11300.1F

3. Background. Utility and energy costs continue to escalate annually requiring more Operations and Maintenance, Marine Corps (O&MMC) funding. At Camp Lejeune and MCAS(H), New River, despite some progress in conservation efforts, costs have dramatically increased. The annual costs for heating and cooling during FY-1979, 1980, 1981 were \$12,000,000, \$18,000,000 and \$19,500,000, respectively. The Marine Corps requires continuing, aggressive conservation programs at the activity level which will ensure attainment of the goals established by references (a) and (b). Despite the unique differences in the mission of each of the major commands at Camp Lejeune and MCAS(H), New River, the Department of the Defense mandated goals, the commitment of the Department of the Navy and the Commandant of the Marine Corps to attain the goals and the prospects of reducing both the consumption of our country's precious natural resources and Operations and Maintenance, Marine Corps funding, should provide the spirit of cooperation and motivation required for a successful program.

4. Policy

a. General. It is the policy of the Marine Corps to support and implement the energy conservation goals and policy directed by higher authority. This commitment by Headquarters Marine Corps requires similar commitment by Marine Corps Base, Camp Lejeune, the Marine Corps Air Station and their tenants. Significant reductions can be made in the consumption of energy without any significant impact on operations training of commands, subordinate tenants and the supporting establishment. It is therefore the policy of commands at Marine Corps Base, Camp Lejeune and Marine Corps Air Station(H), New River, to meet all applicable energy conservation goals set by higher authority.

b. Specific Goals. The goals most significant and relevant to Camp Lejeune and New River are:

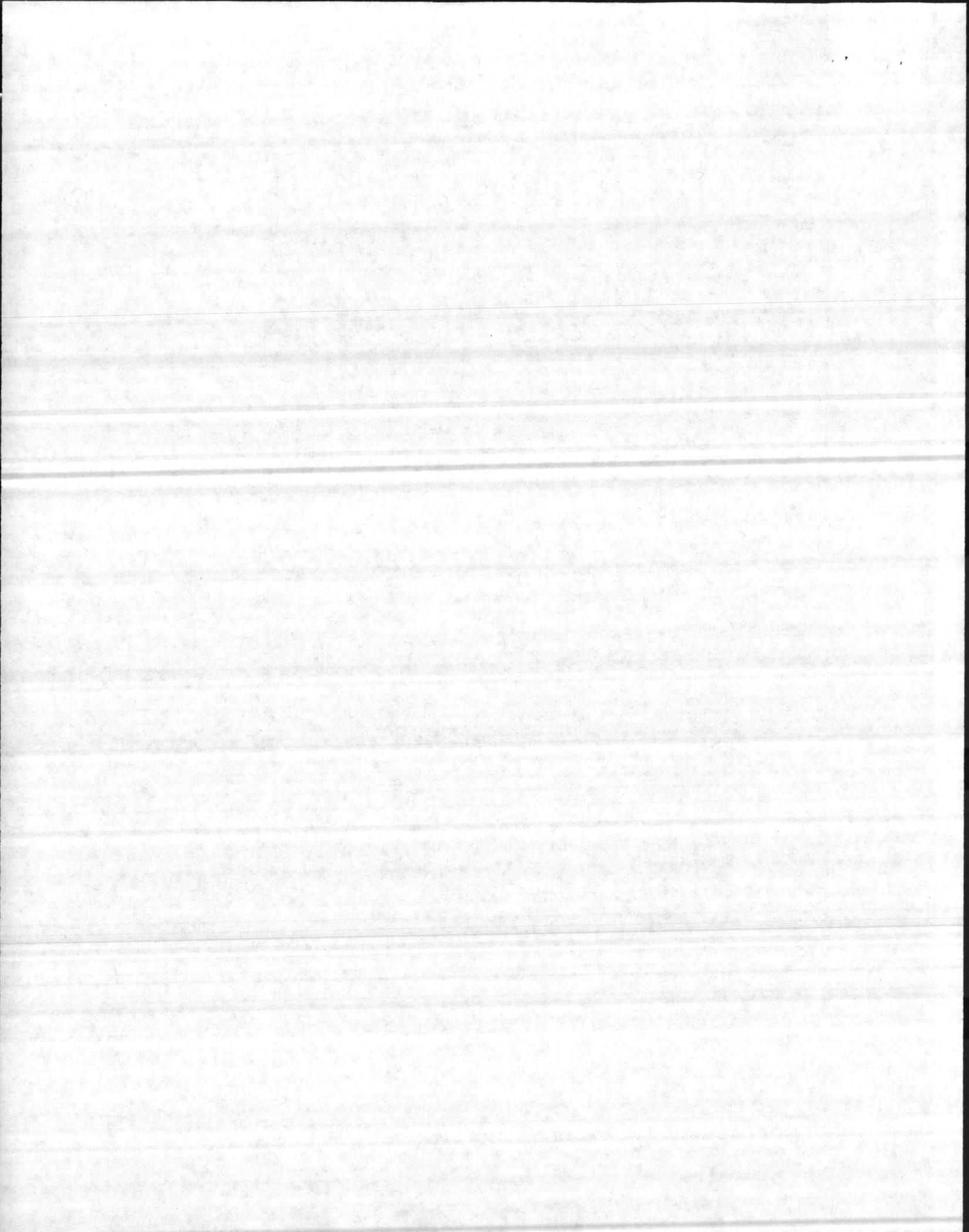
(1) By FY-1985, a reduction of energy consumed per square foot to 20% below that of FY-1975, the baseline year.

(2) Forty-five percent more energy efficient buildings to be achieved in all new construction measured against buildings constructed during or prior to FY-1975.

(3) Substitution of more abundant or renewable energy forms for petroleum or natural gas used, culminating in a total substitution of 10% Marine Corps-wide.

(4) Obtain 1% of Department of Defense (DOD) installation energy by solar and geothermal means by the end of FY-1985 (DOD-wide).

(5) Obtain a 15% reduction in commercial motor transport (fuel/mileage).



c. Facilities, Maintenance and Conservation Terms and Definitions. Enclosure (1) contains a list of facilities, maintenance, and conservation terms to provide assistance to those not familiar with the technical terms.

d. Conservation Initiatives. While no energy conservation initiative is too small to be considered, in keeping with sound management principles, those initiatives which offer the greatest return for the effort and dollars involved will be aggressively sought out and pursued.

e. Minimum Utilization Standards

(1) Air Conditioning

(a) Air conditioning season will begin on or around 1 June and extend to on or around 15 September.

(b) The minimum cooling temperature setting authorized is 78°F. The exceptions to this setting are rooms or buildings where electronic equipment is operated and patient care areas in the medical center. The minimum temperature setting for the latter cases is 75°F.

(c) Air conditioning may only be activated when space temperature exceeds 85°F and when possible ventilation and air circulation is inadequate to relieve discomfort.

(d) Buildings authorized "early" turn-on of air conditioning are listed in enclosure (2). These are buildings within which is performed a medical mission, no natural ventilation exists, electronic equipment operates, or where occupancy levels are so high as to generate sustained temperatures in excess of 85°F.

(e) All blowers on fan systems must be shut off when occupants leave enlisted or officer personnel housing.

(f) All window air conditioners must operate at levels which will not produce temperatures below 78°F and must be shut off when not in use.

(g) Air handling systems will be utilized without compressors during the four to six weeks preceding the normal air conditioning season. This will be the case in enlisted personnel housing and dining facilities.

(h) Air conditioning hours are established as follows:

1. Administrative spaces: 1000 to 1615, Mondays through Fridays. Air conditioners may not be turned on outside of cooling hours unless temperatures exceed 85°F and all possible ventilation and air circulation cannot relieve severe discomfort of personnel. Administrative spaces operating on a 24 hour basis are exempt from air conditioning hours.

2. Dining Facilities: 1000 to 1900, seven days a week.

3. Enlisted Personnel Housing: 0500 to 0800 and 1500 to 2300, Mondays through Fridays; 0500 to 2300 on Saturdays, Sundays and holidays. Billeting for night crew personnel should be consolidated into one UEPH. This UEPH will have the air conditioner in operation during daylight hours.

4. All other nonmedical facilities

a. Exchange Facilities: 0700 to 1800, during days the PX is in use. Curtain walls should be installed to reduce energy use.

b. Commissary Facilities: From one hour prior to opening until one hour before closing during days of normal operations and from 0800 until one hour prior to cessation of work during nonoperational work days. Because of refrigeration requirements for frozen foods, the temperature in the commissary should not be allowed to exceed 82°F during nonworking hours.

c. Club Facilities: 1000 to 2300 on the days clubs are in use.

5. Spaces occupied by Watch Standers: During air conditioning season, spaces occupied by watch standers can be air conditioned, if temperatures would otherwise rise above 85°F.

6. School Classrooms, when not in use.

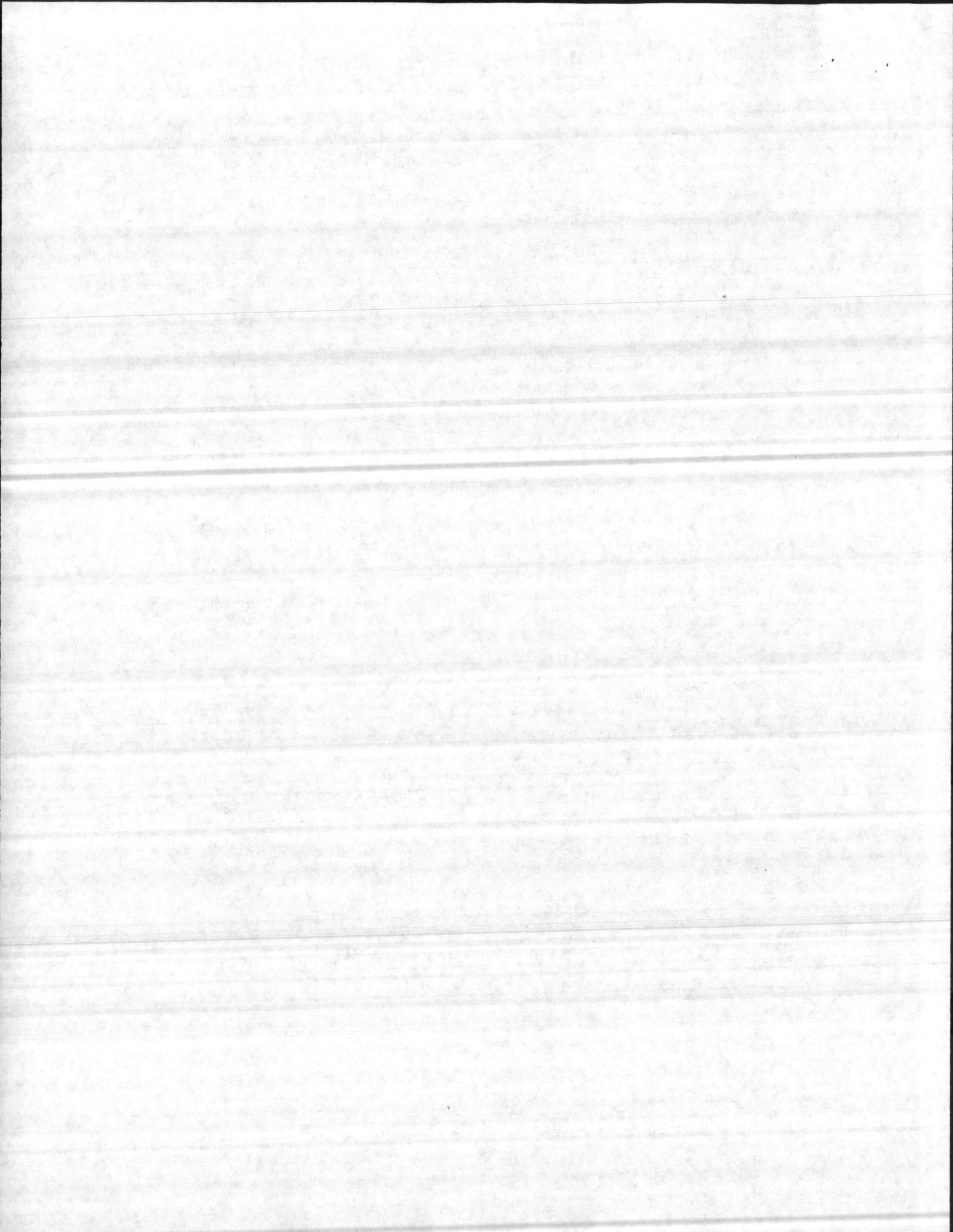
(i) Air conditioning for lounges, meeting rooms, dining areas, and other areas of sporadic use will be authorized only during the period of use. Where possible, curtains should be used to reduce the radiation heating of interior floors and walls.

(j) Screens on window air conditioners should be cleaned monthly.

(k) Screens on central units should be cleaned at least quarterly.

(l) Water chillers must have optimum pressure adjustments.

(m) When water chiller air conditioning units cannot be shut off, chilled water temperatures will be raised to within 5°F of design air temperature.



(n) Notify Base Maintenance Emergency Service Desk at extensions 3001/3002 when assistance is needed to make temperature adjustments on thermostats.

(o) Air Conditioning surveys will be requested via submission of a standard work request form NAVFAC 9-11014/20 (Rev, 2-68) to the Assistant Chief of Staff, Facilities, Marine Corps Base.

(2) Heating

(a) The heat will be turned on from on or about the third week in October to on or about the first week in April.

(b) The maximum heating temperature authorized is 65°F in working and administrative spaces and 68°F in unaccompanied personnel housing.

(c) Requests for use of space heaters in nonheated spaces will be submitted to the Assistant Chief of Staff, Facilities, Marine Corps Base. Second Marine Air Wing tenants at Marine Corps Air Station(H), New River and Marine Corps Air Station(H), New River organizations will submit their requests for space heaters to the Assistant Chief of Staff, Facilities, Marine Corps Base via the I&L Office, Marine Corps Air Station(H), New River.

(d) Windows must be kept sealed shut while these facilities are heated.

(e) Where possible, window curtains will be utilized to reduce drafts and provide additional insulation from the exterior cold.

(f) Temperature Set Back. Where proper equipment exists, automatic temperature set back will occur as follows:

1. Unaccompanied Personnel Housing. Temperatures will be set back to 58°F from 2300 to 0400, seven days a week.

2. Administrative Spaces. Temperatures will be set back to 55°F from 1800 to 0500, Mondays through Fridays, and from 1800 Friday evening through 0500 on Monday mornings.

3. Dining Facilities. Temperatures will be set back to 55°F from 1800 to 0400, seven days a week.

4. Medical Facilities. Exclusive of the main hospital, all medical facilities will be set back to 55°F from 1800 to 0500, Mondays through Thursdays and from 1800 Friday to 0500 Monday.

5. Commissary. From one hour prior to closing to one hour prior to opening during days of normal operations.

6. Exchange. Closing time to 0800, seven days a week, temperatures will be set back to 55°F.

7. Chapels. Temperatures should be set back to 50°F, during periods when chapels are not in use and 68°F for two hours prior to and during periods of usage.

8. All non-medical facilities with thermostats that can be manually adjusted will be set back to 50°F from 1800 to 0600, seven days a week.

9. Leaking steam lines should be reported to the Emergency Service Desk, Base Maintenance at extensions 3001/3002.

10. Notify Emergency Service Desk, extensions 3001/3002, Base Maintenance if assistance is needed to make temperature adjustments on thermostats.

(3) Hot Water. The maximum hot water temperatures for facilities will be as follows:

(a) Family Housing hot water heaters without dishwashers and other facilities requiring hot water for showers and washing hands should be set at 105°F.

(b) Family Housing hot water heaters with dishwashers should be set at 120°F.

(4) Lighting Requirements

(a) Interior Lighting

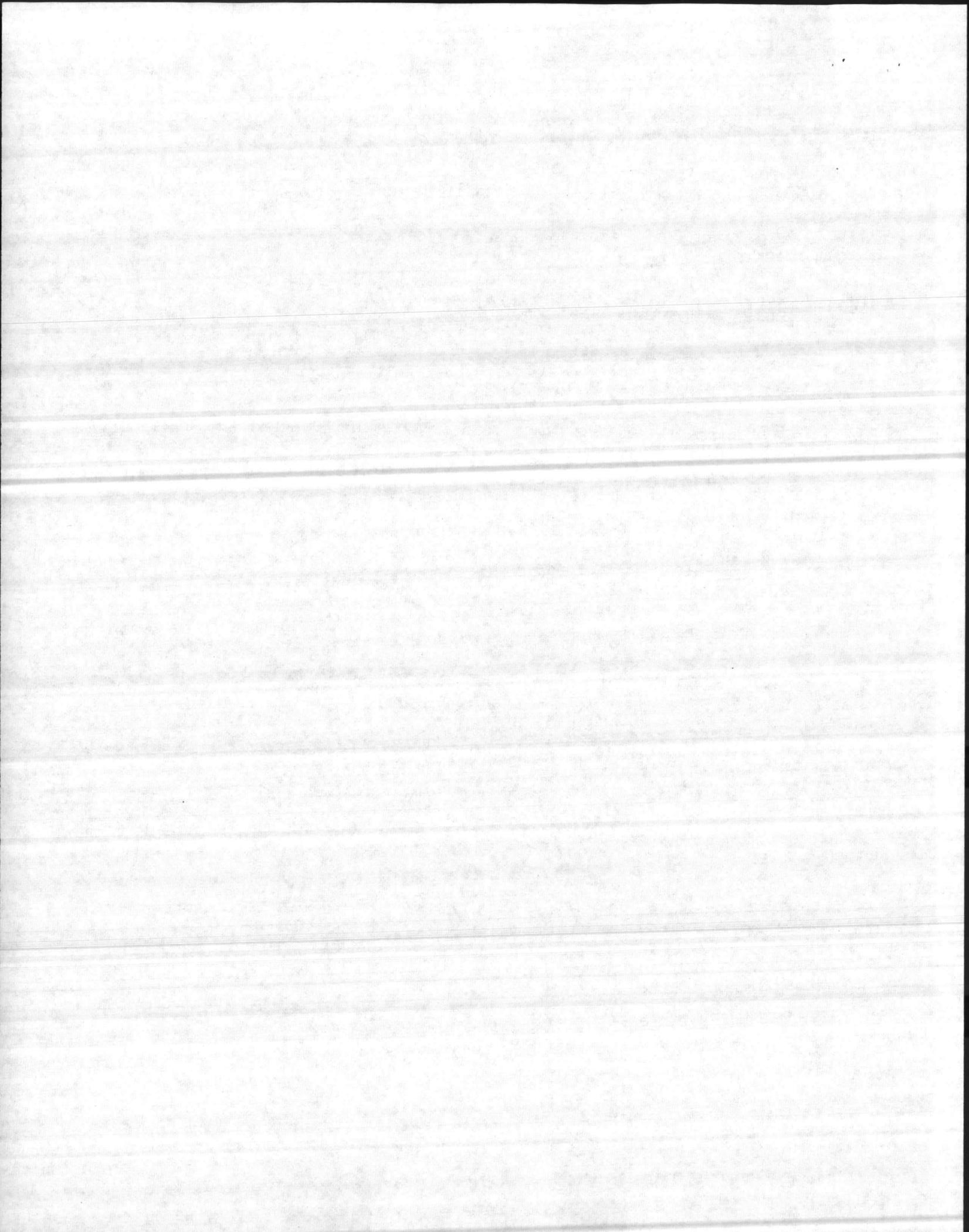
1. Lighting is to be tailored or retrofitted where possible to actual requirements, in accordance with lighting standards set forth below:

100 Foot-candles in Classrooms

50 Foot-candles in Administrative Spaces

30 Foot-candles in Maintenance Areas

10 Foot-candles in General Areas



10 Foot-candles in Hallways

2. Where possible, task lighting is to be used in lieu of the overuse of general lighting. Full use is to be made of natural light and light-colored interior walls.

3. Lights are to be secured in unused spaces, including storage rooms, laundry rooms, closets, heads, lounges, etc., during all periods of nonuse. Incandescent lights are to be secured upon leaving a space for any period. Fluorescent lights are to be secured when leaving a space for a period over 10 minutes.

4. Lights are to be wired (or rewired where possible) to permit selective use of lighting at occupied work stations without turning on entire banks of lights. Individual pull-chains at each work station are recommended.

5. Decorative lighting in clubs and messes is to be minimized. All other decorative lighting for display or other purposes is to be specifically authorized by the Assistant Chief of Staff, Facilities, Marine Corps Base, in accordance with waiver procedures prescribed by paragraph 4e(5)(h).

6. Interior security lighting is to be minimized consistent with security requirements. Consideration must be given to the cost-to-benefit ratio of security lighting. Interior security lighting is to be controlled by separate security switches.

7. Exit signs are to be lighted by one 15W bulb.

8. Fluorescent fixtures are to be the reflective type to make best use of available light.

9. 40W fluorescent tubes are to be converted to 35W tubes. All light bulbs are to be replaced with lower watt bulbs consistent with illumination standards.

10. Overhead lights shall be secured in warehouses and industrial areas except on very overcast days or as required for safety reasons, at the discretion of the shop supervisor, owing to the limited usefulness of such lights for most purposes. Task lighting shall be provided work stations wherever possible to replace oversized overhead lights.

(b) Exterior Lighting

1. Exterior lighting is to be held to a minimum.

2. Exterior security lights are to be mercury or sodium-vapor type of the smallest possible size. Each installation must be justified in terms of cost-to-benefit ratio, most efficient placement of lights and the type of lights installed.

3. Exterior lighting is not permitted during the day. Security lights are to be used only during time of greatest threat to security and are to be turned off when that threat is diminished. Lighting at the Commissary for example, may be secured after about 0600 daily. Timers are to be installed on systems which may be turned off before sunrise and photocells for all-night systems.

4. Fifty percent of all street lighting is to remain secured except in housing areas.

5. Fire alarm boxes are to be lighted by 15W bulbs.

(c) Lighting Survey. Interior or exterior lighting surveys can be requested via submission of a standard Work Request Form NAVFAC 9-11014/20 (Rev. 2-68) to the Assistant Chief of Staff, Facilities, Marine Corps Base.

(5) Water. Water production is currently at near capacity at Marine Corps Base, Camp Lejeune and Marine Corps Air Station(H), New River. Thus, with more new facilities constructed each year, it is imperative to conserve water.

(a) During annual periods of water shortage, watering of grass shall be terminated; plants and shrubs may be watered once a week, and vehicle washing, unless specifically terminated, will only be permitted providing a hose with a positive shutoff nozzle is used.

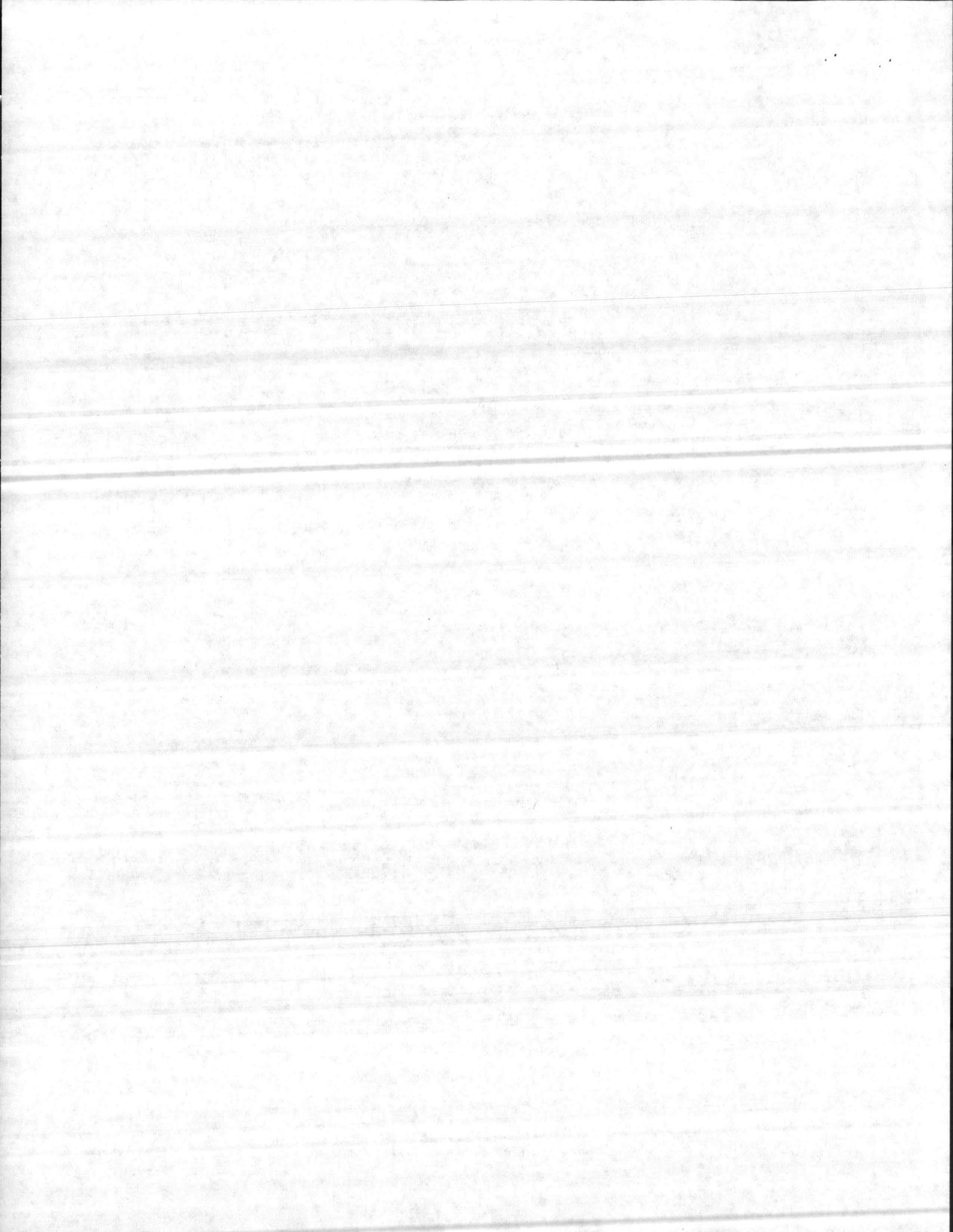
(b) Temperatures for hot water shall not exceed the standards outlined in paragraph 4e(3) above, except where waivers have been granted by the Assistant Chief of Staff, Facilities, Marine Corps Base or his designated representative.

(c) Water-Saving Devices. The following water-saving devices are mandatory for all facilities at Camp Lejeune and New River, including quarters, and will be provided and installed by Marine Corps Base, Camp Lejeune:

1. All hoses shall be equipped with self-closing nozzles.

2. All flushometer toilets and urinals shall be equipped with a flow-reducer flushometer insert.

3. All tank-type commodes shall be equipped with dike inserts to reduce flush volume by one to two gallons. Commodes may alternatively be equipped with a dial-flush system.



4. All showers shall be equipped with an approved flow-reducer showerhead to reduce shower water volume by 50%.
5. All government-owned washing machines without water level selectors shall be set to reduce rinse volume by no more than 4 gallons.
6. Hot water faucet valves in all nonfamily quarters sinks will be replaced with automatic shutoff valve mechanisms.

(d) Cooling Water

1. One-pass water cooled equipment, including ice machines and air conditioning units, is prohibited. Such equipment is to be replaced or cooling towers and a water recirculation system installed.

2. Cooling systems will be disconnected October through March.

(e) Miscellaneous Electricity Utilization Requirements

1. Hot water heaters, except in quarters, shall be secured outside of working hours. Hot water heaters in quarters shall be secured upon vacating quarters and when going on leave by turning off the appropriate circuit breaker.

2. Exhaust and circulation fans shall be reduced in motor size to provide the minimum acceptable air flow as determined by Base Maintenance.

(f) Facility Requirements. The following basic facility requirements are necessary to provide for the efficient utilization of all energy forms.

1. All air conditioned spaces are to be insulated above the ceiling and, as potential savings warrant, in the walls.

2. Windows in air conditioned spaces are to be shielded from the sun's direct rays by reflective sheeting, roof overhang or sun shield. Tinted windows, such as in quarters, are exempt from this requirement. Venetian blinds and/or curtains shall be used wherever possible to further reduce heat gain in air conditioned spaces.

3. Doors into air conditioned spaces are to have springs or other door closers installed. Where possible, air conditioned spaces should be buffered by anterooms.

4. Hot water heaters and boilers are to be fully insulated and all hot water lines lagged. Condensate return lines and cold water lines should also be insulated.

5. Facilities are to be zoned to permit easy securing of air conditioning to unused spaces. Ducts should be secured to unused areas. Cross-connects between air conditioned spaces and other spaces should be blocked off.

6. Restricted-range thermostats are to be installed in all air conditioned facilities.

7. Timers are to be installed to provide for automatic setback or securing of air conditioning units and other equipment.

(g) Government Vehicles

1. Commercial motor transport assets will be consolidated through scheduling in order to reduce mileage and fuel consumption.

2. Maximum utilization will be made of the Class B/C pool, thus minimizing dedicated vehicle assignments within the Class A pool.

3. In principle, the smallest, most efficient vehicles shall be assigned to fulfill a transportation requirement.

4. Driver education classes will include instruction on fuel conservation driving techniques.

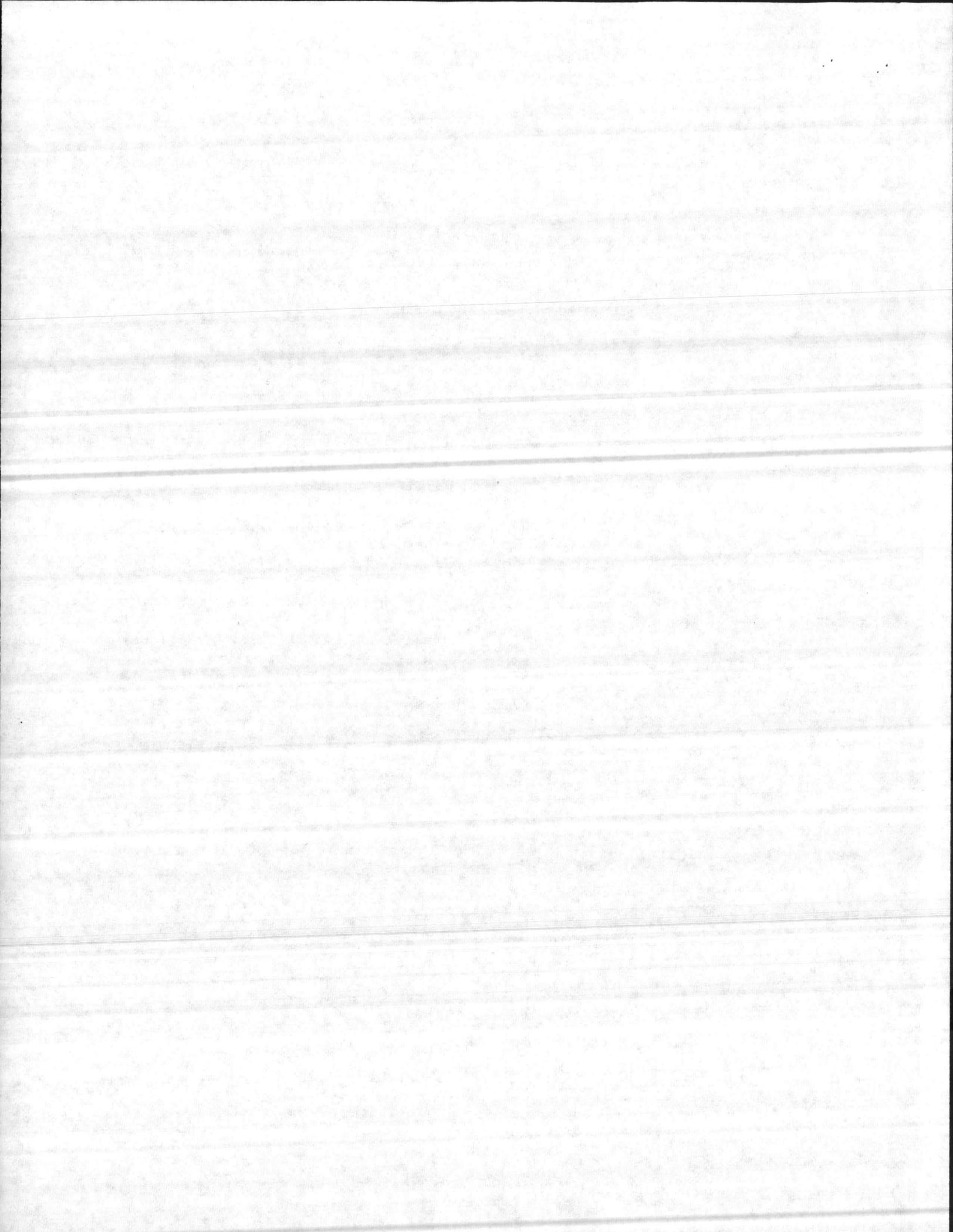
5. Motor pools must assign mileage reduction goals and monitor results.

6. Fuel accountability shall be strictly monitored and enforced.

(h) Waivers to Conservation Standards. Temperature standards and utilization requirements established by this Order and higher authority are not intended to supplant bona fide energy requirements established by appropriate authority or dictated by prudent safety and hygienic practices. Requests for waivers to energy standards should be submitted to the Assistant Chief of Staff, Facilities, Marine Corps Base with full justification.

5. Program Management

a. General. In order to achieve the conservation goals directed by higher authority, there will have to be a



solid program and visible and active commitment by all hands. Commitment to conservation goals requires that all participants in the program's progress are aware of the goals, the methods by which they can actively make contributions, and aware that a command program is affirmatively supported by the commander. Additionally, the results of significant efforts by units or individuals should be rewarded or otherwise recognized for their own contribution(s). Program accountability goes hand-in-hand with conservation efforts.

b. Energy Management Officer. The Energy Management Officer, Office of the Assistant Chief of Staff, Facilities, Marine Corps Base serves as the overall program coordinator. As such, he will provide technical assistance or information to tenant commands at Camp Lejeune and the Commanding Officer, Marine Corps Air Station(H), New River, as required. Other responsibilities include, but are not limited to:

- (1) Monitoring all utilities and energy conservation matters.
- (2) Continued and aggressive prosecution of the program.
- (3) Monitor effectiveness of the program.
- (4) Investigate areas in which assigned goals are not accomplished and initiate or recommend corrective action.
- (5) Monitor the progress of all major utility repair or construction projects and any energy conservation projects.
- (6) Ensure timely submission of reports and project information required by higher authority.
- (7) Conduct command inspections with Marine Corps Base, Camp Lejeune and, upon request, courtesy inspections to tenant commands at Camp Lejeune and Marine Corps Air Station(H), New River.

c. Command and Organization Energy Conservation Officers. Reference (b) directs that all Marine Corps installations and operating forces (divisions, wings, force service support groups, etc.) shall establish an energy conservation task group at the headquarters level to act in an advisory capacity with direct access to the commander. In order to facilitate the efforts of the task group, an energy conservation officer should be assigned at command, organizational and unit levels. These personnel will manage the dissemination of conservation awareness information, as well as ensure the accountability of subordinate units in complying with a command's program.

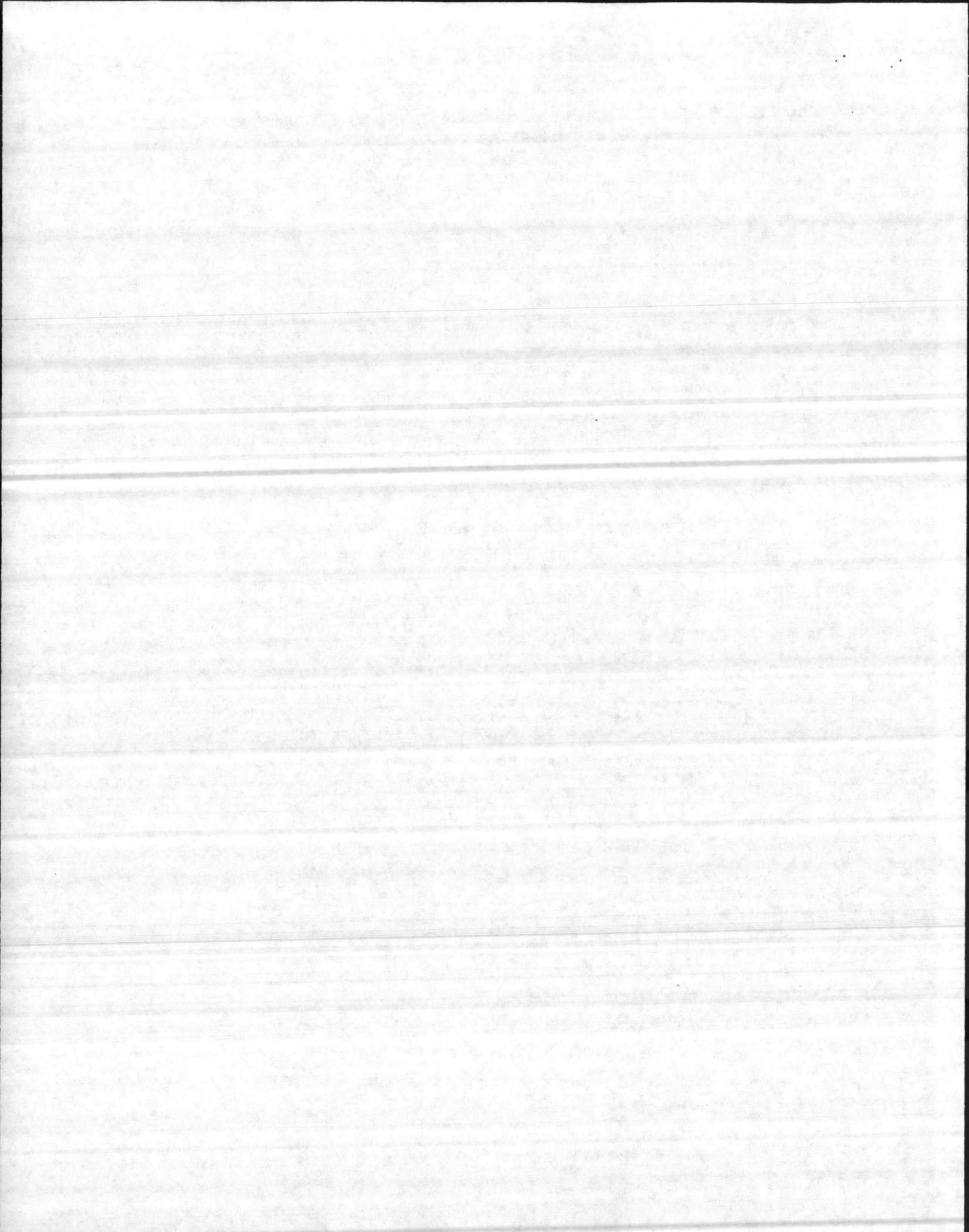
d. Utility and Energy Conservation Committee. The Utility and Energy Conservation Committee is the means by which conservation information will be promulgated and overall energy conservation progress and policies will be reviewed. The Chairman of the committee will be the Assistant Chief of Staff, Facilities, Marine Corps Base. The duties, functions and responsibilities of the Utility and Energy Conservation Committee are discussed in enclosure (3).

e. Activity Energy Conservation Plan. In conjunction with the Atlantic Division, Naval Facilities Engineering Command, an Activity Energy Conservation Plan has been formulated for Camp Lejeune. The plan was based on surveys conducted in 1975 and 1980. Repair and construction projects were identified which should enable Camp Lejeune and New River to achieve much of the facilities energy reduction goals. Briefly, the plan has provided the technical information necessary for the development of major projects. A few of the significant projects include:

- (1) Utility Monitoring and Control System (UMACS)
- (2) Precipitators for the main steam plant at Camp Lejeune (to enable burning of coal).
- (3) Equipment to optimize the combustion process in the 35 boilers at Camp Lejeune and New River.
- (4) Enhancement of interior and exterior lighting systems.
- (5) Blocking windows and adding insulation in major facilities.
- (6) Repairing and re-insulating 69 miles of steam lines.
- (7) Architectural and Engineering studies of potential energy conservation projects.
- (8) Various energy saving projects within Family Housing.

f. Utility Monitoring and Control System (UMACS)

- (1) The UMACS is a computer system which can:
  - (a) Instantaneously display the temperatures of controlled buildings.
  - (b) Turn on and shut off heating and air conditioning systems in order to maintain or change building temperatures to reduce electricity or steam load.
  - (c) Control the temperature and chlorine level in swimming pools.
- (2) Ultimately, approximately 300 buildings will be controlled by UMACS. Also planned for inclusion on the system are generators which will control sewage lift stations and water pumps. Two of the most important functions of the system are it's ability to "shed" loads and set back temperatures.



(a) Load Shedding. Load shedding is the planned and timed shut-off and turn-on of air conditioning systems and other electrical loads during peak electrical demand periods usually in August. This is crucial for several reasons:

1. By spreading the load reduction, shut-down of air conditioning systems is only necessary for a relatively short period of time.
2. Demand charges are reduced to Camp Lejeune.
3. The possibility of a shortage of electricity within the electrical grid of Camp Lejeune and New River is reduced.

(b) Temperature Setback. Temperature setback is the planned and timed reduction of heating temperatures in winter and air conditioner usage during the summer for buildings controlled by UMACS. These reductions or increases are usually accomplished between 2300 and 0400, seven days a week, and 0800 to 1500, Monday through Friday.

(c) Enclosure (4) is a list of buildings currently controlled by the UMACS system.

g. Building Monitors. With over 1930 buildings at Camp Lejeune (exclusive of Family Housing) it will be difficult for commands to manage the measurement of progress of subordinate units. The key to attaining program information and ensuring compliance with applicable directives is building monitors. Charged with the responsibility of monitoring a building's energy consumption and identifying and reporting facility maintenance and repair problems, these individuals are vital to a successful program. The personnel should be assigned in writing. The duties, functions, and responsibilities of building monitors are outlined in enclosure (5).

h. Facility Temperature Standards Notice. Facility temperature standard notices will be posted prominently in each building. The notice will indicate the maximum heat and minimum cooling temperatures permitted in the building, as well as the name and telephone number of the building monitor and the Command having cognizance over the building. Enclosure (6) is a sample of the standards notice.

i. Barracks Shutdown. When deployed units vacate billeting, administrative, and maintenance spaces, utility services must be curtailed. Use of billeting spaces by residual unit or other personnel must be consolidated so that large spaces or entire buildings are not heated or cooled for a few people. This should be monitored by command and organization facility Energy Conservation Officers. As a guide, buildings with less than 60% occupancy are considered to be inefficiently used in terms of utility and energy consumption, in particular, heating and cooling. The average barracks cost approximately \$100.00 per day to heat and \$70.00 per day to cool. Where possible, in the above situation, occupants should be moved to other barracks to enable the shut-down of the partially occupied building. This is despite the fact that it will be difficult, if not impossible to retain "unit integrity" until the deployed unit(s) return. The Energy Management Officer, Marine Corps Base (Extensions 3034/2544) should be notified in order to request barracks shutdown.

j. Utility and Energy Contingencies. Utility and energy supplies can be interrupted due to natural disasters and storms as well as the inability of commercial sources to make fuel deliveries or meet electrical demands. A utility and energy contingency plan will enable available resources to be utilized effectively and efficiently. Enclosure (7) describes how the contingency plan is implemented.

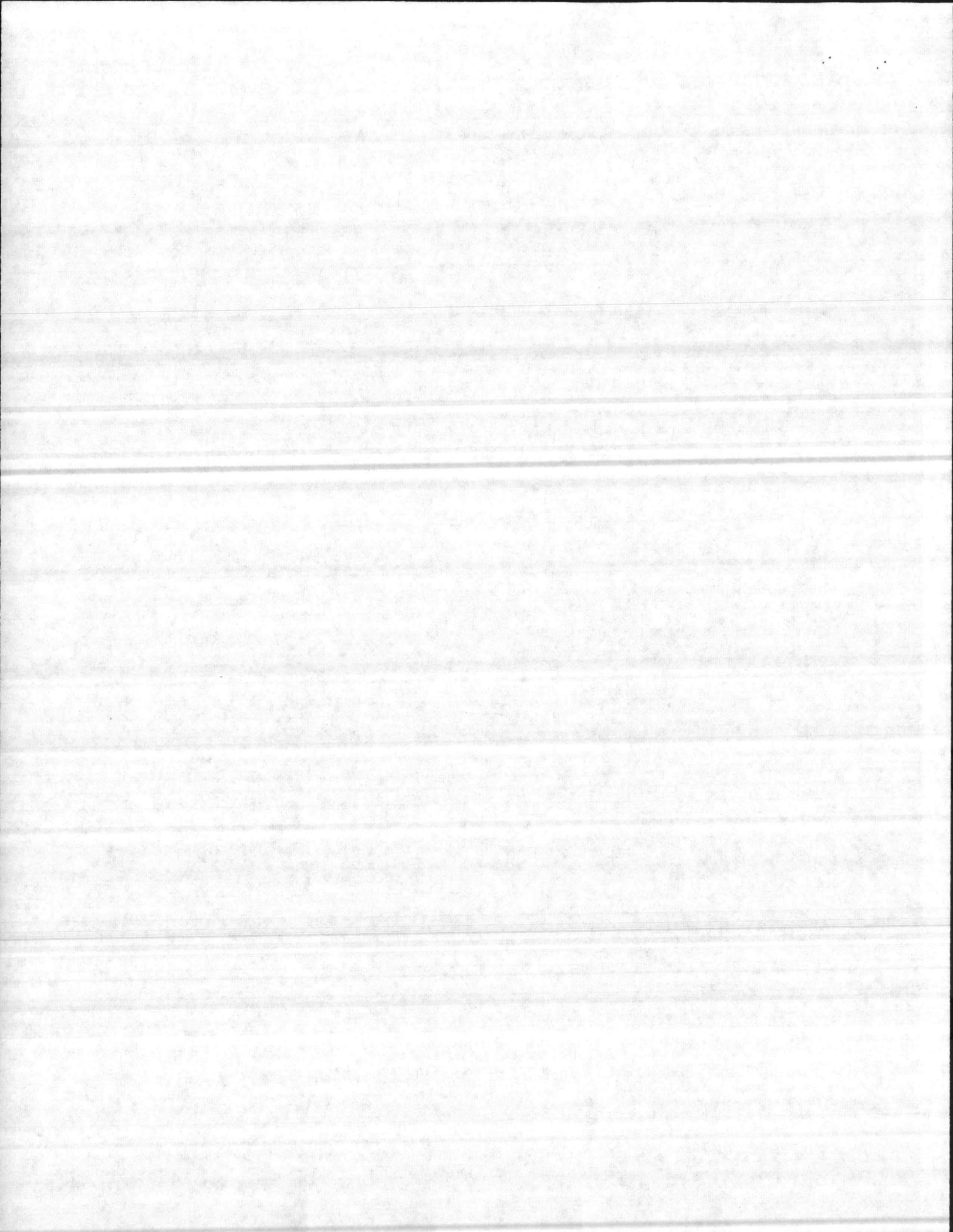
k. Energy Alert. During periods of peak electrical demands, energy alerts will be declared. The purpose of the Alert is to significantly reduce the electrical demand on the Camp Lejeune/Marine Corps Air Station(H), New River grid during the hours of 1200 to 1700. This will reduce the consumption charges being paid to the electric company, as well as the "demand" charges. Enclosure (8) outlines the procedures for promulgating and actions to be taken on Energy Alert days.

l. Command Inspections. Command inspection of an organization's conservation program provides valuable feedback to both the unit commander and higher headquarters. Frequently, through such efforts, formerly reported, but as yet uncorrected discrepancies, can be identified and assistance can be provided by Base Maintenance. Enclosure (9) is a sample of the Command inspection form that will be utilized for conducting command inspections.

m. Energy Conservation Monitor Teams. To assist the Base Energy Management Officer and the Installation and Logistics Officer, Marine Corps Air Station(H), New River in identifying buildings not in compliance with facility temperature restrictions, energy conservation monitor teams from each command will make periodic visits to key air conditioned and heated buildings. The team will be made up of Base Maintenance personnel. On the first occasion a building is discovered not in compliance with temperature restrictions, a "WARNING" facility discrepancy report will be issued to the unit occupying the building. After the first report, discrepancy reports will be sent to the Command Energy Management Office. Enclosure (10) is a sample of the Facilities Energy Discrepancies Report.

n. Energy Hotline. Anyone discovering cases of utility or energy waste through defect or negligence should report the information by telephone to the Energy Hotline at 451-2544 during normal working hours. Case of energy waste that pose 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 Emergency Service Desk, Base Maintenance at extensions 3001/3002.

o. Government Buses. Camp Lejeune and New River areas are served by commercial military buses. The schedules should be prominently displayed on unit bulletin boards and use of the buses should be encouraged for dependents and, where possible, by unit personnel. The schedule is printed as an enclosure to the Globe and Rotorvue on at least a quarterly basis. BO 4650.2 is also a schedule of the Base bus schedule and routes.



p. Carpool Program. A command carpool program is one of the largest potentials for fuel conservation. In cities and states where carpooling is actively encouraged, dramatic reductions in fuel consumptions are being experienced. Though the nature of military training and operations may not appear to lend themselves well to a carpool program, ingenuity and flexibility on the part of the organization and unit commanders can result in significant fuel savings with a minimum, if any, impact on the organization. In this regard, the most successful programs at Camp Lejeune and New River are those where a commitment to the program is clearly established and where a single office coordinates the program. A complex or sophisticated plan is not necessary. Rather, a simple logbook is easily maintained at the battalion or squadron level.

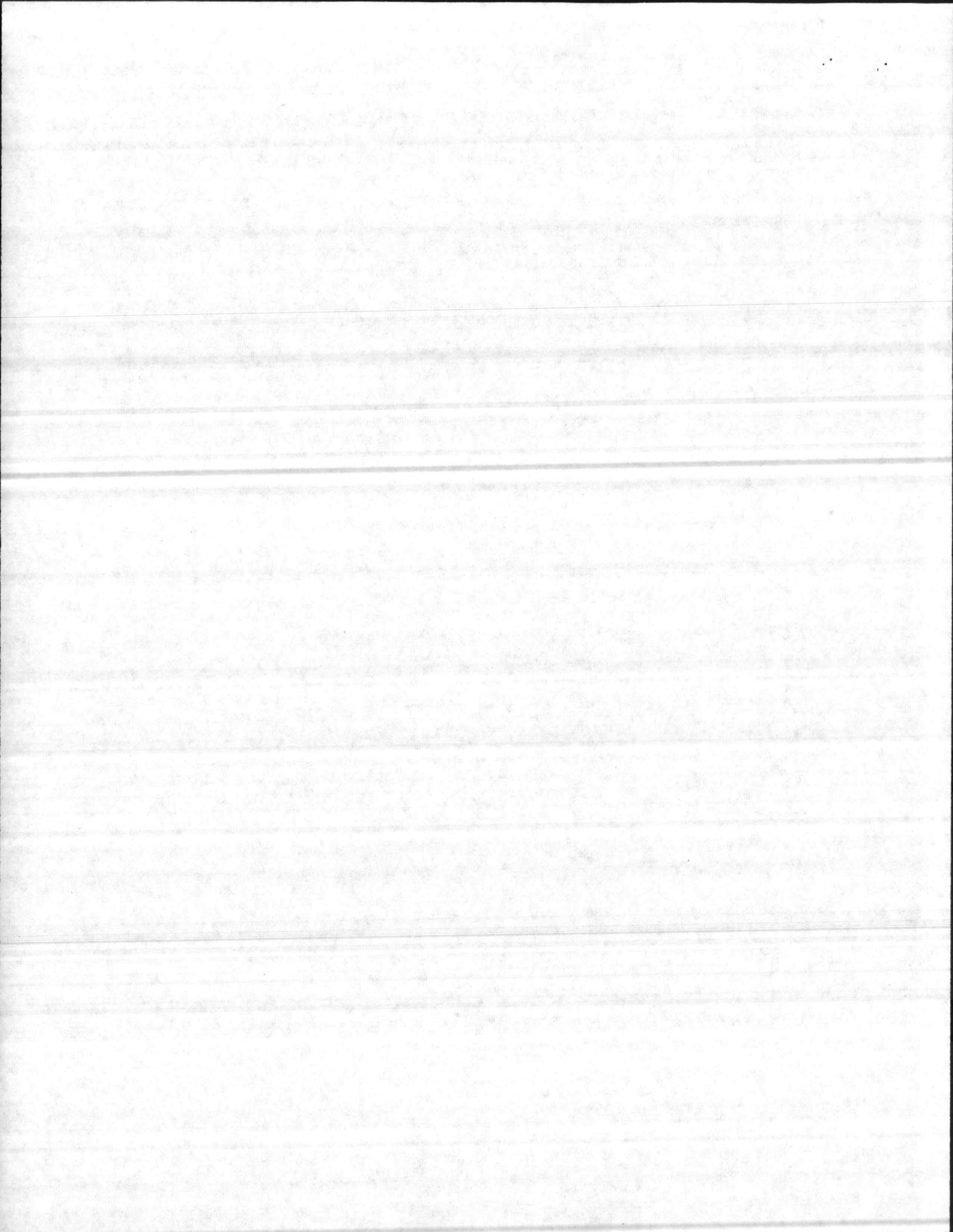
6. Technical Assistance. Technical assistance is available to Commands desiring help in their energy conservation program. For example, an energy survey may be requested for a building(s) in order to determine its' energy conservation efficiency. Such a request should be submitted, in writing, to the Assistant Chief of Staff, Facilities, Marine Corps Base (Attn: Energy Management Officer). For other matters regarding energy conservation, contact the Energy Management Officer at phone extensions 3034/2544.

7. Action. Fleet Marine Force commanders, Commanding Officer, Marine Corps Air Station(H), New River, Base organizational commanders and tenants will ensure that the contents of this Order are given wide dissemination within their commands and organizations, upon receipt and at appropriate intervals thereafter.

8. Applicability. Having received the concurrence of the Commanding Generals, 2d Marine Division, FMF, 2d Marine Aircraft Wing, FMF and 2d Force Service Support Group (REIN), FMFLant, and the Commanding Officers, Marine Corps Air Station (Helicopter), New River, Naval Regional Medical Center, and Naval Regional Dental Center, this Order is applicable to those Commands.

DISTRIBUTION: A



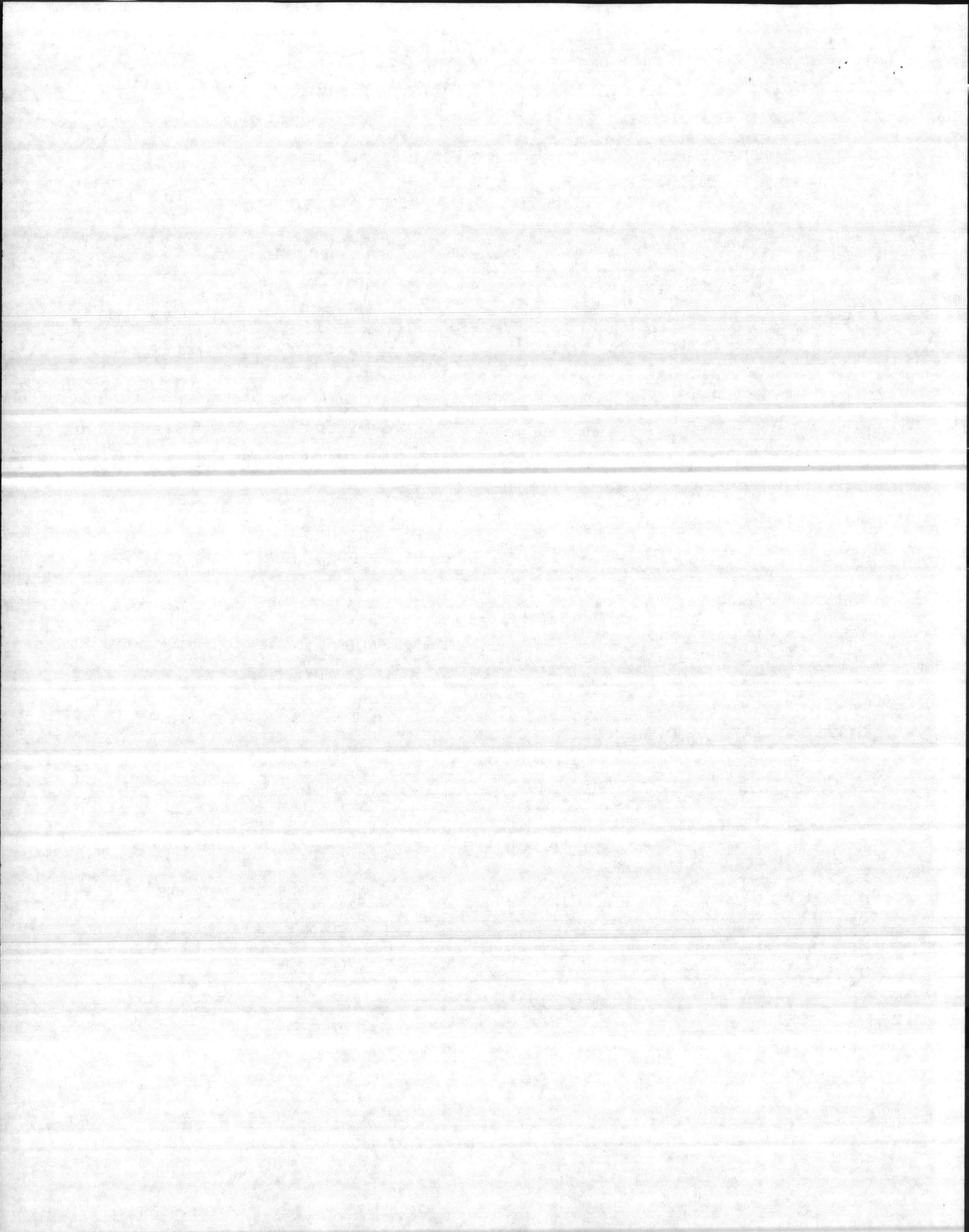


FACILITY, MAINTENANCE AND CONSERVATION,  
TERMS AND DEFINITIONS

1. Area Maintenance Officer. An officer designated by the Area Commander, who is responsible for all area facilities. All routine repair/maintenance requests will be submitted to the Base Maintenance Officer, via the Area Maintenance Officer, except requests for Dining Facilities.
2. Building Monitor. An individual assigned the authority to monitor and control building temperatures. Ideally, this individual should be the unit or organization police sergeant so that he has access to facility maintenance and repair work request information.
3. Demand Charge. The amount charged by the power company for the maximum kilowatts of energy used by the customer during an interval (15 minutes). The current rate at Camp Lejeune is \$6.37 per KW.
4. Enhanced Lighting. The lighting of an area to the required level with the least amount of energy consumed.
5. Foot Candle. A measure of illuminance on a surface everywhere one foot from a source of light of one candle and equal to one lumen per square foot.
6. Kilowatt (KW). A unit of power equal to 1000 watts. (Example: Turning ten 100 watt light bulbs on for one hour would require one kilowatt.)
7. Kilowatt Hour (KWH). A measure of energy consumption that is equal to using 1000 watts of energy for one hour.
8. Load Shedding. The turning off of electrical loads to limit peak electrical demand.
9. MBTU. One million British Thermal Units. One BTU is the amount of energy required to increase the temperature of one pound of water, 1°F.
10. Peak Demand. The maximum electrical load reached during a billing period. Peak Demand is usually reached during the month of August.
11. Peak Shaving. Turning off electrical loads during peak demand periods. This is usually done by intermittently shutting off air conditioner systems aboard base so that no one area of buildings are turned off at one time.
12. Temperature Setback. Adjusting the controlled temperature setting to a lower setting usually during unoccupied periods.
13. User Charge. The charge applied to a customer for the amount of energy that the customer has consumed.
14. UMACS. A computerized Utility Monitoring and Control System that is utilized to monitor and control energy consuming equipment, utility plants, and equipment.
15. Mobile Electric Power (MEP). Mobile Electric Power is a term describing portable generators - usually tactical. These units can be connected to "throw switches" which will enable a building's electrical power needs to be fulfilled by the generator.
16. Steam Condensate Lines. These are pipes that return the steam that is "spent" in the heating process to the steam plants. This "spent" steam or steam condensate is actually water of a temperature of 140 to 180 degrees F.
17. Steam Traps. These are valve-type devices that prevent live steam from entering condensate lines.
18. Emergency Maintenance. Work requiring immediate action to correct or prevent loss or damage to government property, restore disrupted essential services, or eliminate hazards to personnel or property.
19. Facility. A separate, individual building, structure or other item of real property improvement, which is subject to separate reporting under the Department of Defense Real Property Inventory.
20. Work Request. A form used to request the Maintenance Department to perform work or to prepare a cost estimate of specific work. Customers should use standard Work Request Form NAVFAC 9-11014/20 (Rev. 2-68). Organizations should reconcile their outstanding work requests with the Work Reception Branch of Base Maintenance on a monthly basis.

BELOW THIS LINE





BUILDINGS AUTHORIZED EARLY TURN-ON OF AIR CONDITIONING

1. Centrally or window air conditioned buildings that meet the below criteria will be authorized early turn-on of air conditioning.

- a. Air conditioning essential to the operation of sensitive equipment.
- b. Medical and dental facilities.
- c. Facilities which cannot be ventilated by natural or artificial air circulation, including troop housing, especially where no window screens exist.
- d. Welfare and recreation facilities.

2. The below listing of buildings are authorized early turn-on prolonged use of air conditioning:

a. Communications or Data Processing Facilities

Bldg 1	Bldg 1101	Bldg BA-102	Bldg M-401
Bldg 24	Bldg 1108	Bldg BB-5	Bldg PT-5
Bldg 59	Bldg 1116	Bldg BB-8	Bldg RR-12
Bldg 518	Bldg 1202	Bldg BB-250	Bldg SH-07
Bldg 751	Bldg 1301	Bldg FC-364	Bldg 817
Bldg 780	Bldg 1502	Bldg H-17	Bldg M-102
Bldg 900	Bldg 1606	Bldg HP-53	Bldg M-126
Bldg 1002	Bldg 1771	Bldg HP-55	Bldg M-323
Bldg 1005	Bldg 4000	Bldg HP-60	
Bldg 1011	Bldg TC-706	Bldg M-130	

b. Medical and Dental Facilities

Bldg 15	Bldg 900	Bldg FC-460	Bldg H-1
Bldg 36	Bldg AS-302	Bldg FC-313	Bldg M-128
Bldg 65	Bldg BB-10	Bldg G-770	Bldg RR-11
Bldg 421			

c. Exchange Facilities

Bldg 4	Bldg 1207	Bldg BA-101	Bldg RR-10
Bldg 84	Bldg 4014	Bldg BB-245	Bldg TC-910
Bldg 225	Bldg AS-232	Bldg FC-320	Bldg TT-2461
Bldg 403	Bldg H-1	Bldg M-19	Bldg TT-2477
Bldg 1220			

d. Commissary Stores

Bldg 1200	Bldg 2455	Bldg AS-414
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e. Printing Plant

Bldg 80	Bldg M-131
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f. Hostess House

Bldg 896
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g. Bonneyman Bowling Center

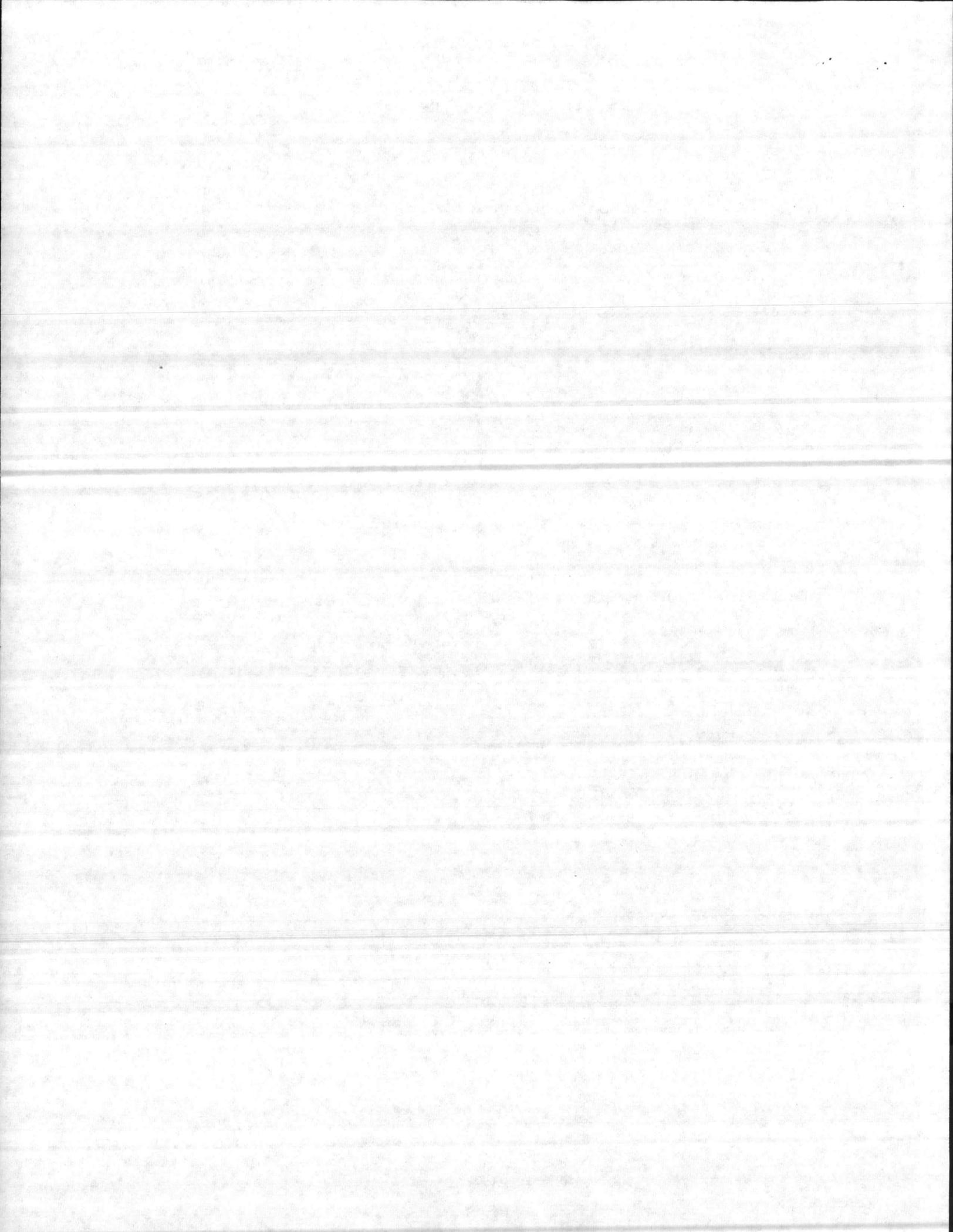
Bldg 89
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h. Base Theaters

Bldg 19	Bldg 4014
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i. Command Club Management System Facilities

Bldg 62	Bldg 2615	Bldg BB-54	Bldg M-134
Bldg 125	Bldg BA-115	Bldg BB-27	Bldg M-231
Bldg 322	Bldg BA-114	Bldg FC-318	Bldg M-240
Bldg 425	Bldg BA-113	Bldg G-560	Bldg RR-49
Bldg 524	Bldg EA-101	Bldg H-39	Bldg TC-614
Bldg 1006	Bldg BB-45	Bldg M-100	Bldg TC-910
Bldg AS-208	Bldg AS-710	Bldg AS-901	



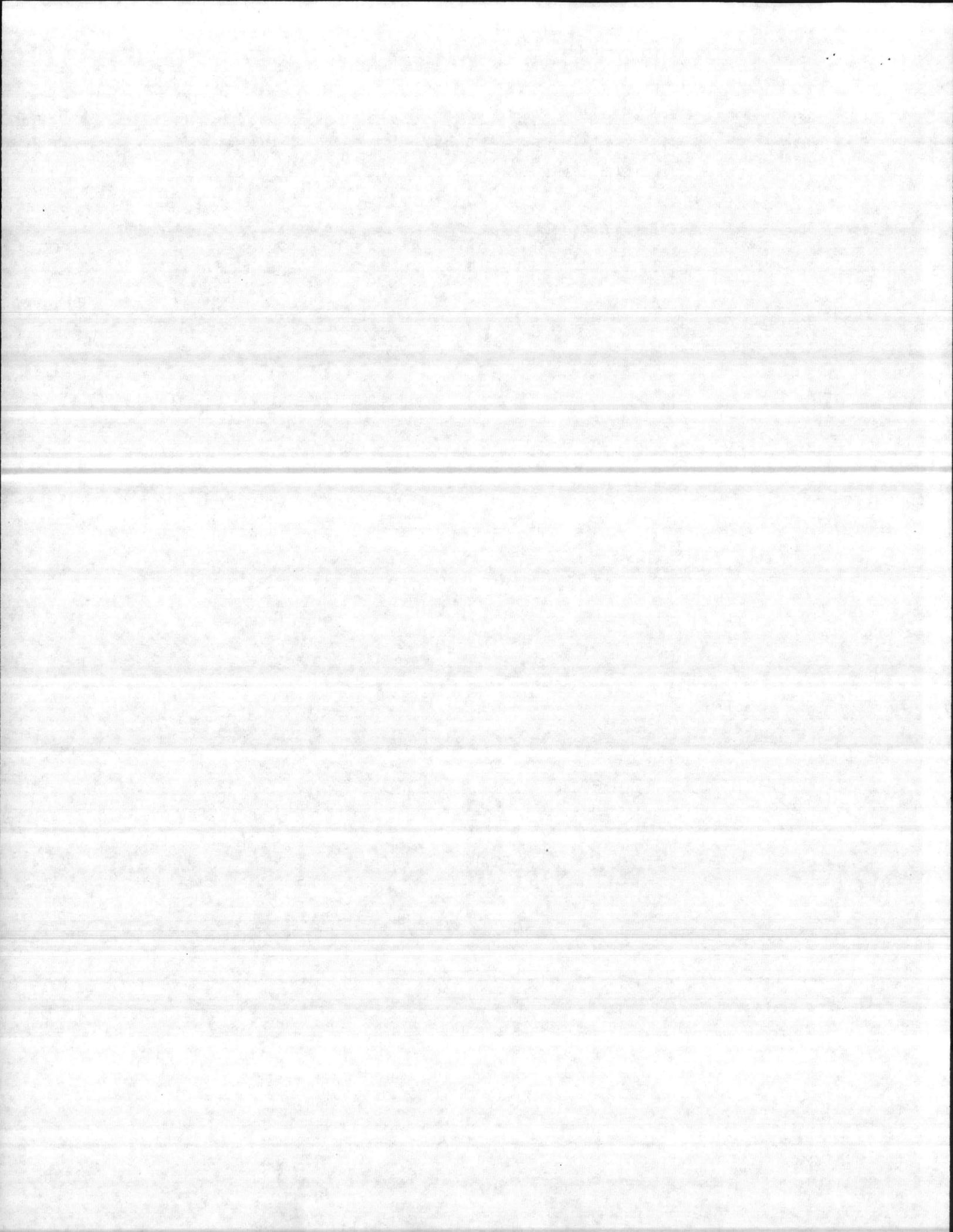
j. MCAS (H), New River Facilities

Bldg AS-130	Bldg AS-320	Bldg AS-570	Bldg AS-3000
Bldg AS-205 <sup>From</sup>	Bldg AS-425	Bldg AS-705	Bldg AS-4012
Bldg AS-222 <sup>New</sup>	Bldg AS-504	Bldg AS-805	Bldg AS-4106
Bldg AS-226	Bldg AS-518	Bldg AS-822	Bldg AS-4110
Bldg AS-312	Bldg AS-4141	Bldg AS-843	Bldg AS-4120

k. Dining Facilities

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Bldg 9	Bldg 521	Bldg BB-7	Bldg G-640
Bldg 122	Bldg AS-4012	Bldg FC-303	Bldg M-324
Bldg 325	Bldg AS-226	Bldg FC-420	
Bldg 411	Bldg BA-103	Bldg FC-540	



UTILITY AND ENERGY CONSERVATION COMMITTEE

1. In order to coordinate an effective conservation program at Camp Lejeune and the Marine Corps Air Station (H), New River, the Utility and Energy Conservation Committee has been established. The Assistant Chief of Staff, Facilities, Marine Corps Base, is designated as Chairman, Energy Conservation Committee. In addition to the Chairman, the Utility Energy Conservation Committee will be composed of the following representatives:

Assistant Chief of Staff, G-4, 2d Marine Division, FMF  
 Assistant Chief of Staff, Ops, 2d Force Service Support Group, (REIN), FMFLant  
 Chairman, Energy Conservation Council, MCAS (H), New River  
 Commanding Officer, Naval Regional Medical Center  
 Commanding Officer, Naval Regional Dental Center  
 Commanding Officer, Marine Corps Service Support Schools  
 Commanding Officer, Marine Corps Engineer School  
 Area Commander, Camp Geiger  
 Commanding Officer, Support Battalion  
 Commanding Officer, Headquarters Battalion  
 Commanding Officer, Rifle Range Detachment  
 Commanding Officer, Field Medical Service School  
 Commanding Officer, Infantry Training School  
 Base Maintenance Officer  
 Base Motor Transport Officer  
 Base Special Services Officer  
 Joint Public Affairs Officer  
 Director, Family Housing  
 Superintendent, Camp Lejeune Dependents' Schools

2. The Energy Conservation Committee will convene at the call of the Chairman, with administrative support provided by Marine Corps Base.

3. The Utility & Energy Conservation Committee will perform the following:

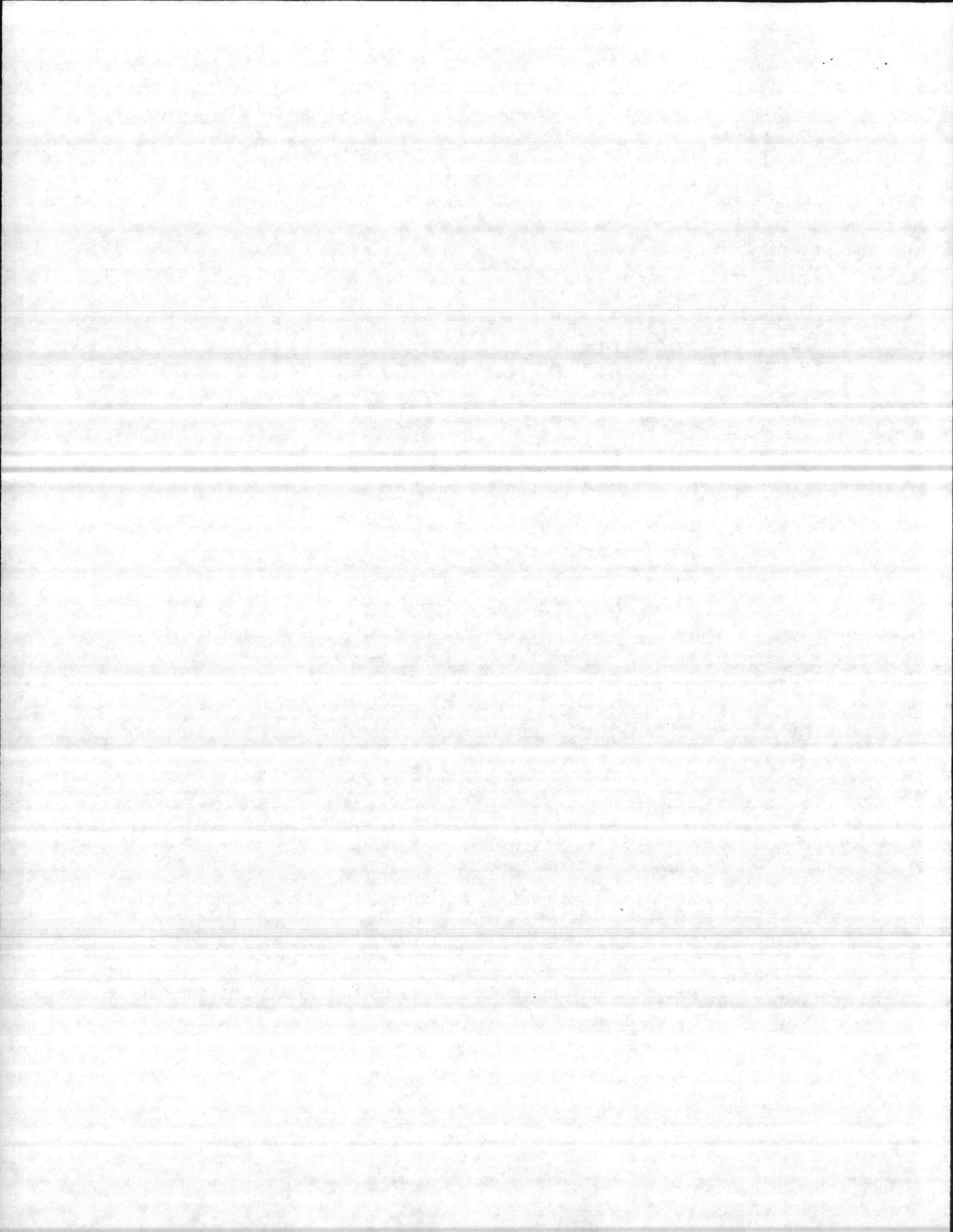
- a. Develop procedures which will assure the optimum utilization of energy resources and maximum savings through energy conservation programs while enabling all commands to continue their operations and training missions without compromise to military readiness, safety or effectiveness.
- b. Provide implementation guidance directed toward reaching the goals established by references (a) and (b).
- c. Receive utilities and energy conservation comments and suggestions from command and activity representatives and make recommendations to the Assistant Chief of Staff, Facilities.
- d. Disseminate utility and energy conservation information.
- e. Ensure maximum publicity of energy conservation programs and emphasize individual awareness and participation in the conservation of energy.

4. Commanding officers/area commanders will:

- a. Assign an Energy Conservation Officer in writing.
- b. Establish and maintain procedures to eliminate waste and abuse of utility and energy systems.
- c. Establish energy patrols to frequently spot check facilities for execution of the energy conservation measures shown in enclosure (9). It is recommended that patrols be composed of a representative of the area or organization S-4 and one or more unit police sergeants.
- d. Utilizing the Utilities and Energy Command Inspection Form shown in enclosure (9), take appropriate and corrective action towards individuals who fail to respond to energy conservation guidance.
- e. Submit suggestions or report problem areas to the Utility and Energy Conservation Committee.

5. Director, Family Housing will:

- a. Establish and maintain procedures to emphasize energy conservation in all family housing units.
- b. Cite occupants who fail to comply with energy conservation guidelines, i.e., outside lights on during the day; tampering with "pre-set" thermostats, etc.,



LIST OF FACILITIES CONTROLLED BY  
UTILITIES MONITORING AND CONTROL SYSTEM (UMACS)

1. Hadnot Point Buildings

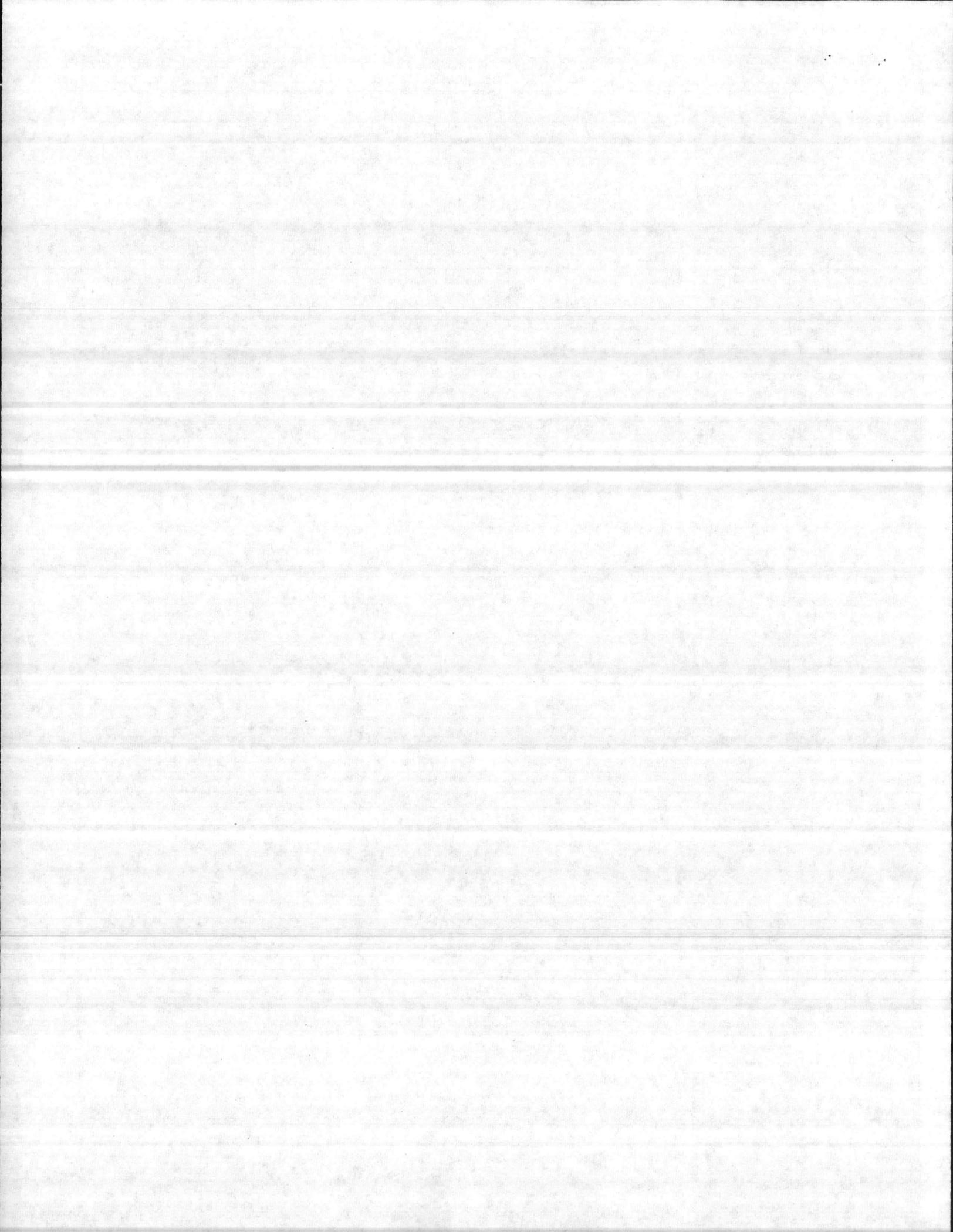
Bldg 10	Bldg 212	Bldg 404	Bldg 506
Bldg 12	Bldg 213	Bldg 406	Bldg 507
Bldg 51	Bldg 217	Bldg 407	Bldg 510
Bldg 53	Bldg 301	Bldg 409	Bldg 511
Bldg 55	Bldg 308	Bldg 410	Bldg 514
Bldg 57	Bldg 309	Bldg 412	Bldg 515
Bldg 60	Bldg 312	Bldg 415	Bldg 517
Bldg 101	Bldg 313	Bldg 417	Bldg 519
Bldg 111	Bldg 316	Bldg 420	Bldg 523
Bldg 118	Bldg 318	Bldg 422	Bldg 527
Bldg 202	Bldg 321	Bldg 426	Bldg 1140
Bldg 204	Bldg 323	Bldg 427	Bldg 1220
Bldg 205	Bldg 326	Bldg 502	Bldg 1340
Bldg 208	Bldg 327	Bldg 503	

2. French Creek Area Buildings

Bldg FC-304	Bldg FC-310	Bldg FC-413
Bldg FC-305	Bldg FC-311	Bldg FC-414
Bldg FC-306	Bldg FC-411	Bldg FC-415
Bldg FC-309	Bldg FC-412	Bldg FC-416

3. Courthouse Bay Buildings

Bldg BB-250    Bldg BB-255



DUTIES OF THE BUILDING MONITOR

1. The building monitor is a command, organization, unit or department member who is responsible for monitoring the energy efficient operation of a building(s). The monitor should be assigned in writing. His or her duties should include, but not be limited to, the following:

- a. Checking the temperature of the building(s) at least twice daily - ideally at 0800 and 1300.
- b. Initiating necessary corrective action to rectify deviations from temperature guidelines.

~~c. Identification and reporting of all energy conservation related maintenance and repair work to the police sergeant or S-4. In the case of a building under the cognizance of a civilian organization, this information should be forwarded to the individual who can submit a standard Work Request Form (NAVFAC 9-11014/20 Rev. 2-68) to Base Maintenance.~~

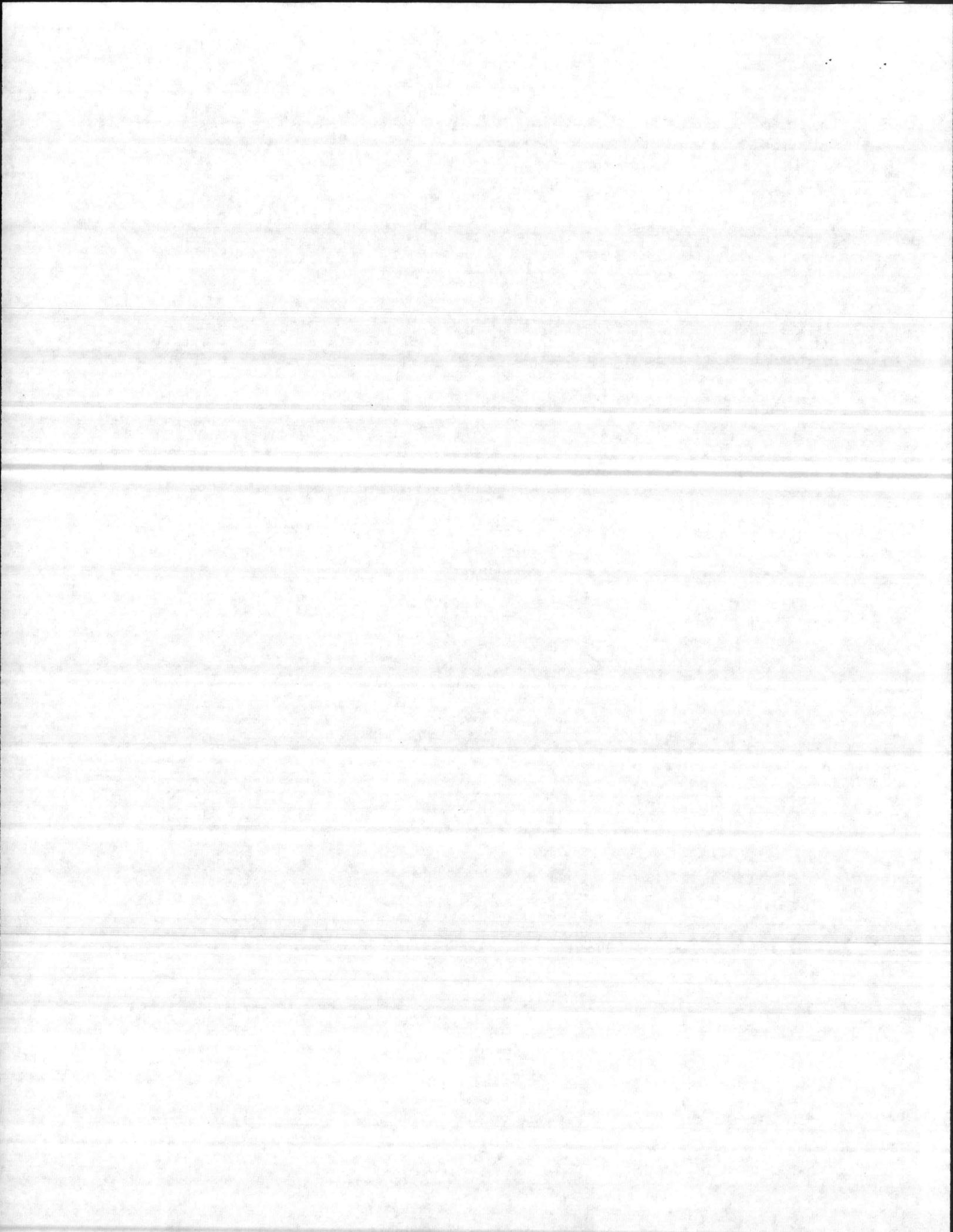
- d. Maintain status on all outstanding energy conservation related work requests.

e. Keep the individual who has cognizance over the building advised of all matters pertaining to the building and its occupants, compliance with temperature guidelines and other energy conservation matters. The most significant areas to monitor are the building's temperature and occupants utility and energy consumption habits. These include, but are not limited to:

- (1) Length of time it takes for showers (3-5 minutes is advised).
- (2) Keeping windows and doors closed in winter and summer during heating and air conditioning season.
- (3) Faucets and lights turned off when not in use.

f. Ensure that current energy conservation information is prominently displayed within the building. Minimally, this information should include the Facility Temperature Standards Notice, carpool information and a spot where a few weekly home, vehicle or on-base energy conservation tips can be posted.

- g. Attend organization or department level meetings on energy conservation.



FACILITY TEMPERATURE STANDARDS NOTICE

MAXIMUM HEATING TEMPERATURE \_\_\_\_\_

MINIMUM COOLING TEMPERATURE \_\_\_\_\_

COMMAND HAVING COGNIZANCE  
OVER THIS BUILDING:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

BUILDING MONITOR:

\_\_\_\_\_  
\_\_\_\_\_

TELEPHONE #: \_\_\_\_\_

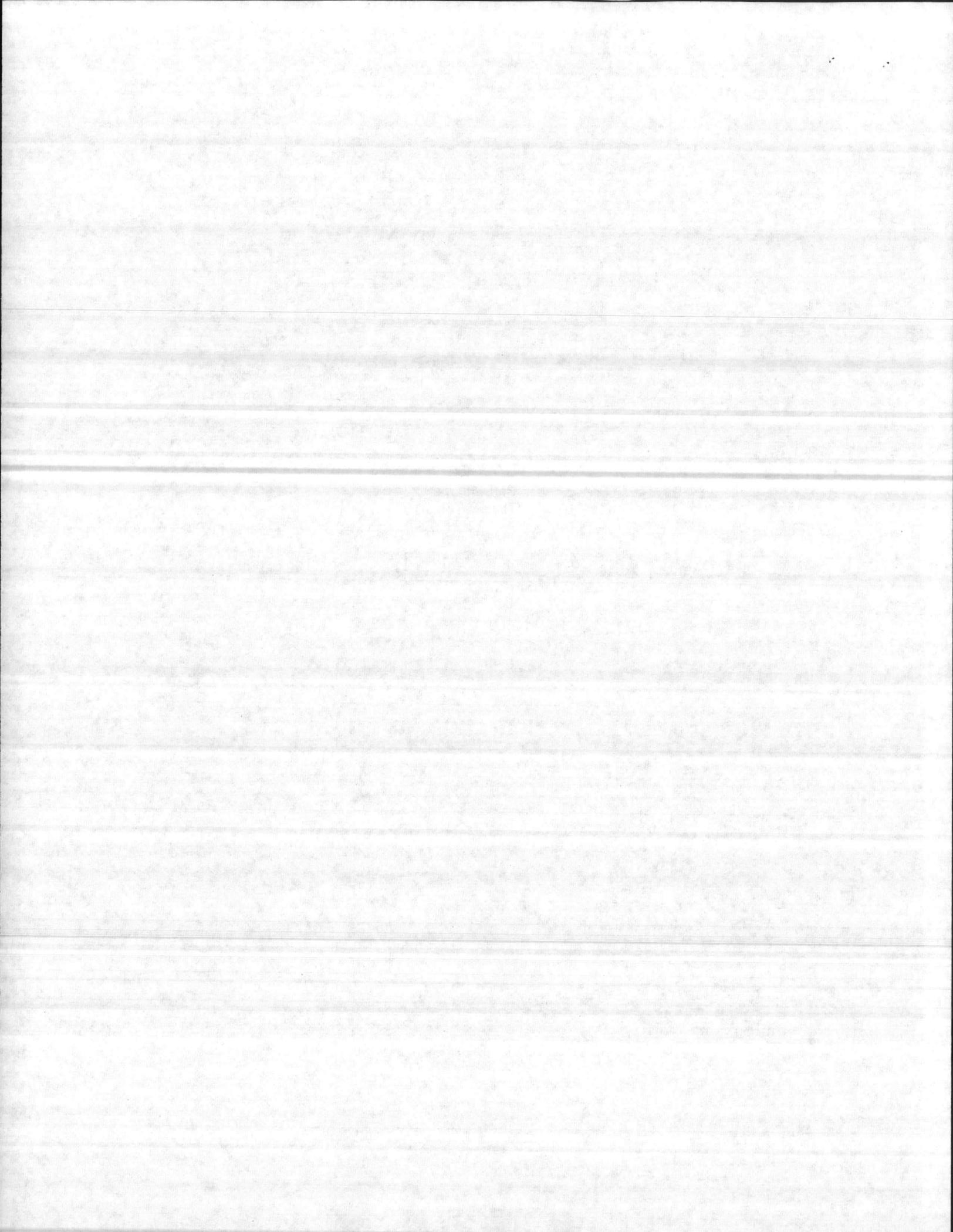
EMERGENCY MAINTENANCE (BASE MAINTENANCE)

TELEPHONE NUMBER 3001 OR 3002

DO NOT TYPE BELOW THIS LINE FOR COMMAND ACTION



DO NOT TYPE BELOW THIS LINE FOR COMMAND ACTION



UTILITY AND ENERGY CONTINGENCY PLAN1. Electricity

Condition I - 5% reduction goal in electricity. The majority of the reduction will be accomplished by the Utility Monitoring and Control System. It will stagger the shedding of air conditioning loads for brief periods of time, as required. Energy alert procedures will probably be placed in effect.

Condition II - 10% reduction in electricity

- a. Shut down all nonessential loads. Nonessential electrical loads are those not directly affecting the command or organization mission.
- b. Use of comfort air conditioning will terminate except in direct patient care and medical/dental laboratories.
- c. Shut off all lighting near windows and in hallways, except in areas of direct patient care and medical/dental laboratories.
- d. Shut off coffee pots and reproduction machines.
- e. Switch to mobile electric/auxiliary power for peak demand periods (1300 - 1630 week-days).

Condition III - 50% reduction or greater in electricity

- a. Shut down all nonessential loads.
- b. Use of comfort air conditioning will terminate.
- c. Commence shutdown and secure all functions not directly related to communication, security, safety, messing and health.
- d. Secure all building lighting during daylight hours except in direct patient and medical/dental laboratory areas. Absolute minimum mission-essential lighting during the hours of darkness.
- e. Declaration of energy emergency. This may warrant sending civilian personnel home.
- f. Switch to mobile electric or auxiliary power.

2. HeatCondition I - 25% reduction in steam generating capacity

- Priority of steam distribution to messing and medical and dental facilities.
- Heating temperatures in billeting facilities may drop considerably.

Condition II - 50% or greater reduction in steam generating capacity

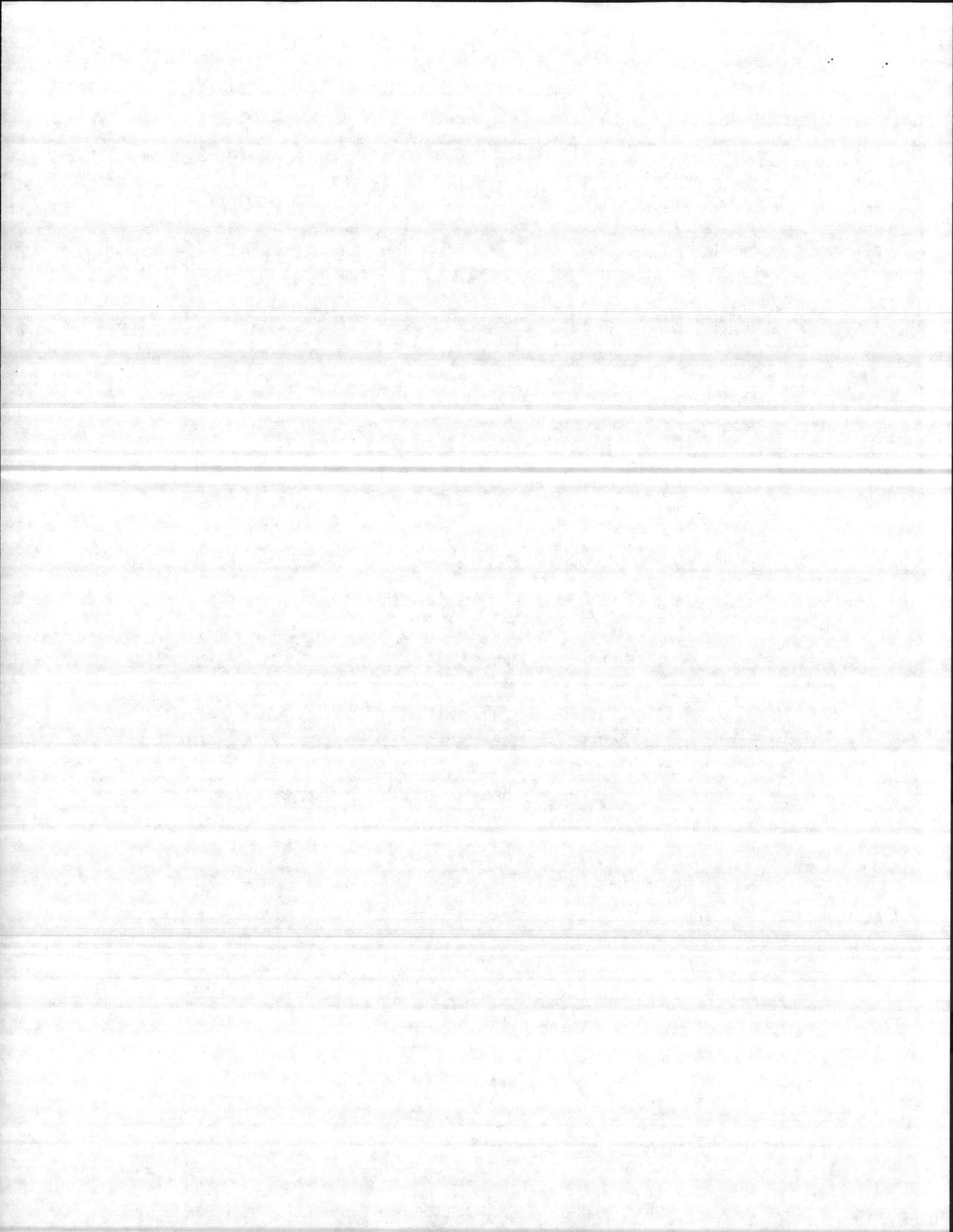
- Priority of steam distribution to messing and medical and dental facilities.
- Heat may have to be turned off completely.

3. WaterCondition I - Normal water supply

- a. Report and repair all water leaks, including leaking faucets and flush valves to Base Maintenance.
- b. Use water hoses only when equipped with control nozzles.
- c. Use clothes washers and dishwashers with full loads only.
- d. Eliminate continuous flush fixtures.
- e. Convert faucets frequently left open to spring loaded type.
- f. Convert shower heads to low flow rate type.
- g. Wash cars only with buckets.
- h. Restaurants serve water only when requested by customer.

Condition II - Minimal or potential water shortage

- a. Stop watering grass.



- b. Water shrubs once a week.
- c. Wash cars only with buckets or hoses with pistol-grip nozzles.
- d. Secure showers without low flow rate shower heads.
- e. Avoid cleaning walks, carports and streets with water.
- f. Publicize shortage.
- g. Wash cars only with buckets.

h. Restaurants serve water only when requested by customer.

i. Water outages in quarters will be controlled by amount of water in storage tanks. When water reaches low level point to maintain fire protection pressure, it will be shut off until tank returns to a safe level at which time water will be restored. The fire department will be notified of areas with a water outage. Housing occupants should maintain a 2 - 3 gallon water supply during this condition.

Condition III - Moderate water shortage

All of Condition II, plus:

- a. Secure all swimming pools relying heavily on fresh water rather than filtration and chlorination pools.
- b. Set air conditioners with cooling towers to 80°F or higher.

Condition IV - Severe water shortage

All of Conditions II and III, plus:

- a. Notify fire department to conserve water to include minimizing burning-off of weeded areas and use of water for training purposes.
- b. Stop all washing of vehicles on base, including buses, taxis, motor transport and personal-owned vehicles.
- c. The use of washing machines in Base quarters will be in accordance with the following once-a-week schedule:
  - Odd numbered days - Quarters with odd numbers
  - Even numbered days - Quarters with even numbers
- d. Housing and UEPH/OPH occupants maintain strict water conservation practices, such as minimum flushing of toilets and use of showers.
- e. Curtail use of water in industrial areas/process to maximum extent possible. Coordinate mission required high water usable operations with Base Maintenance.
- f. Set utility conservation patrols for all commands to ensure against water waste.

4. Vehicles

Condition I - 5-20% deficiency in diesel/mogas supplies of moderate duration (less than a month)

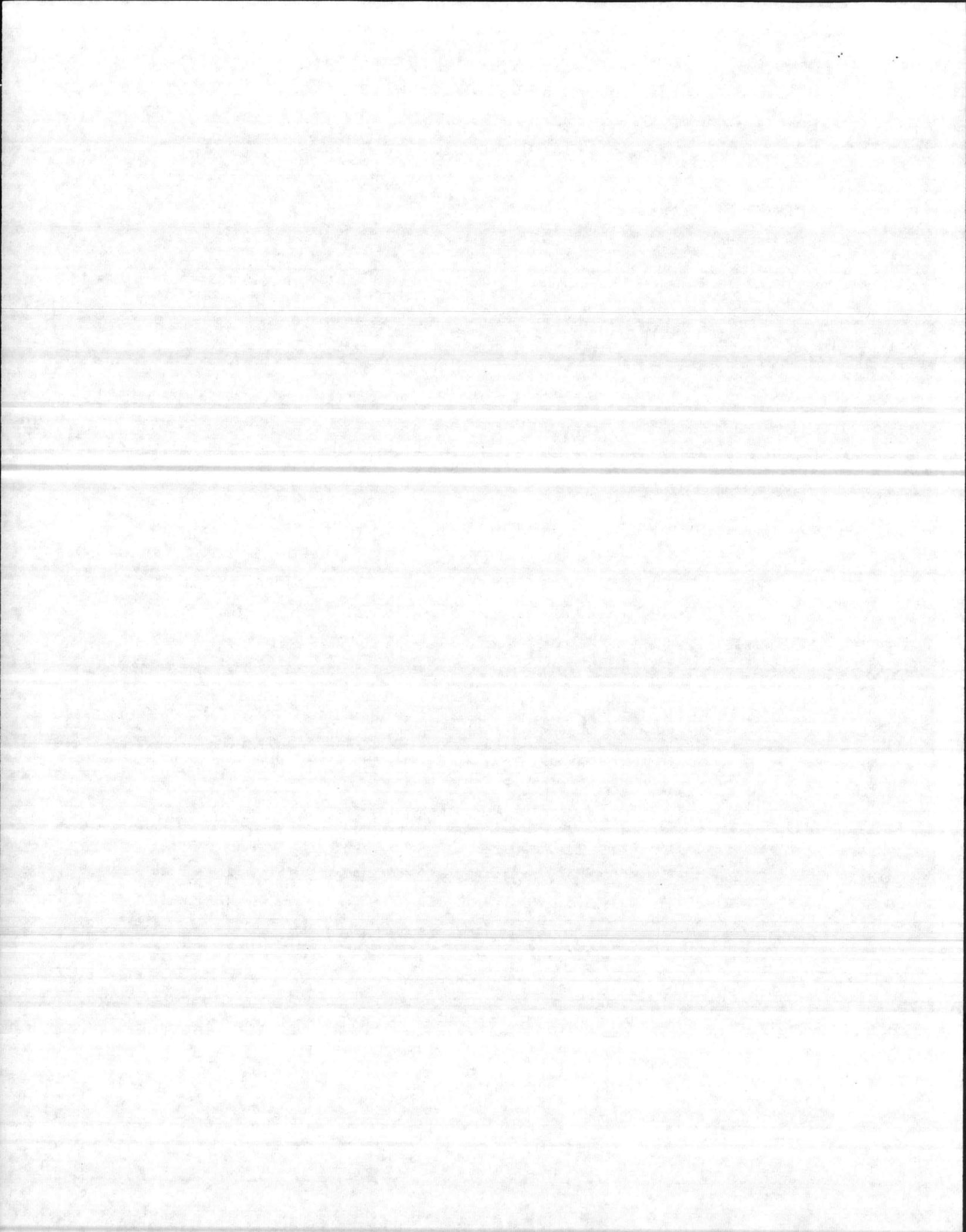
- a. Immediate reduction in all vehicle utilization (except emergency vehicles) by 20%.

Condition II - 20-50% deficiency in diesel/mogas supplies of moderate duration (more than a month)

- a. Immediate 50% reduction for all administrative vehicles not directly in support of FMF operations.
- b. Immediate 20% reduction of all other vehicles except emergency vehicles.

Condition III - Significant deficiency of diesel/mogas of significant duration

- a. Elimination of all administrative vehicle operations not in direct support of FMF operations.
- b. Immediate 30% reduction for all other vehicles except emergency vehicles.



ENERGY ALERT PROCEDURES

1. An energy alert will be declared by the Base Maintenance Officer when one or more of the below conditions exist:

- Temperature conditons are expected to cause the Base's demand and consumption for electricity to exceed its projects consumption peak.

- Loss or reduction in commercial electricity due to generation problems, storm conditions or natural disaster.

2. Upon declaration of an energy alert, the below procedures or actions will be implemented:

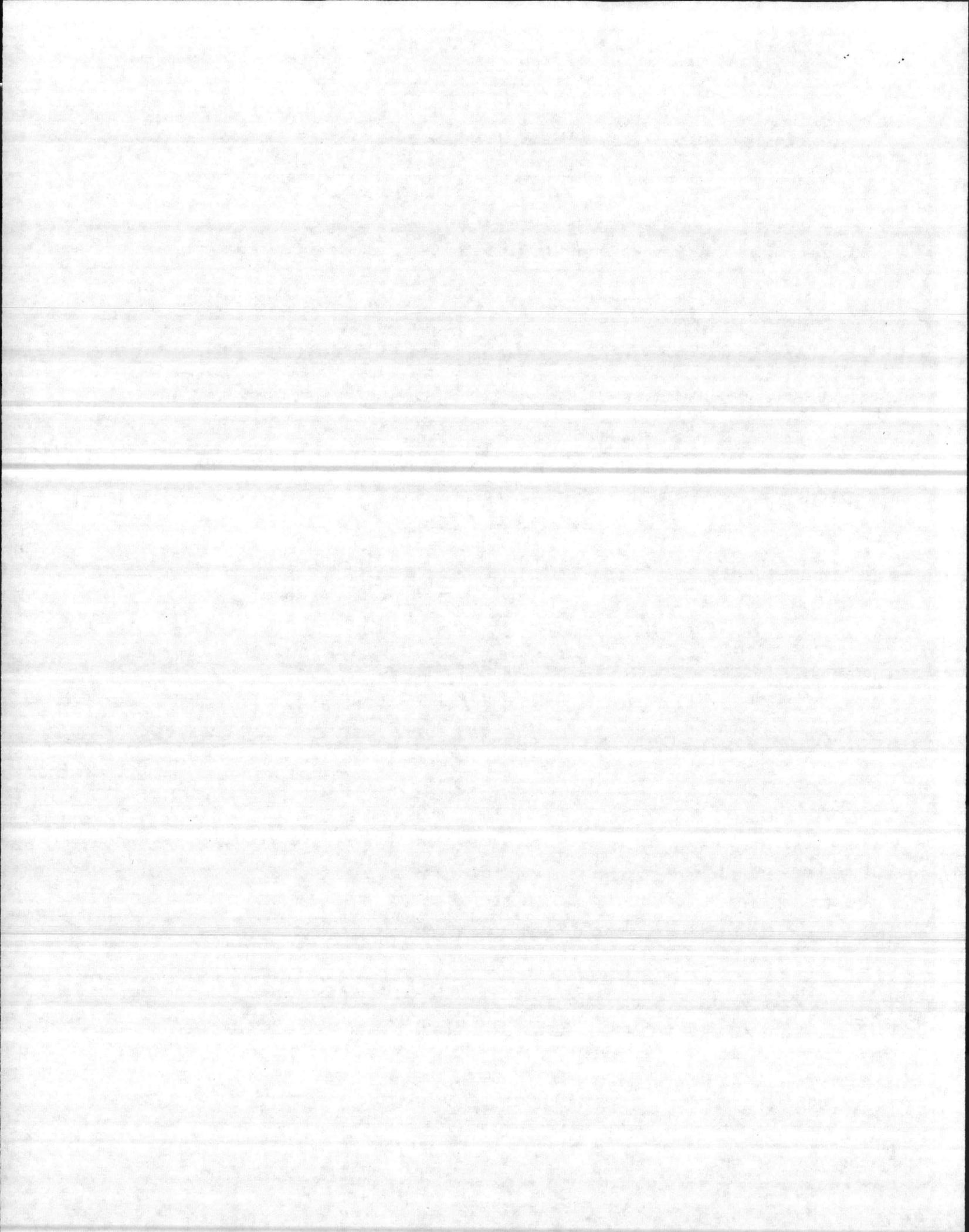
- Commands should reduce or eliminate all nonessential electrical loads such as air conditioning, lights and coffee pots.

- Mobile Electric Power (Fleet Marine Force generators) or stationary auxiliary power will be activated and brought "on line" at the below locations upon the request of a representative of the Utilities Branch, Base Maintenance.

- Air conditioning units controlled by the UMACS will probably be run intermittently in order to reduce the electrical load.

3. Below are listed the buildings with auxiliary/mobile electric power systems, the command or unit responsible for equipment operation and a point of contact:

<u>Building</u>	<u>Responsible for Operation</u>	<u>POC/Telephone Number</u>
1	Comm/Elect Officer, MCB	Telephone Officer 2531
2	CG, 2d Marine Division	Fac0, 2d MarDiv 2516
3	PMO, MCB	OPS Officer 2555
20	Base Maintenance Officer. (BMO)	UtilBrnch, BM 5642
22	BMO	UtilBrnch, BM 5642
59	CG, 2d Force Service . Support Group	EngSpt0, 3648
1101	OIC, Consolidated ASC	AsstOIC, 2721
1202	BMO	UtilBrnch, BM 5642
AS-122	CO, MCAS	I & L Office, 455-6506
AS-203	BMO	UtilBrnch, BM 5642
AS-206	BMO	UtilBrnch, BM 5642
AS-230	BMO	UtilBrnch, BM 5642
AS-302	CO, MCAS	I & L Office, 455-6506
AS-504	CO, MCAS	I & L Office, 455-6506
AS-571	CO, MCAS	I & L Office, 455-6506
AS-606	BMO	UtilBrnch, BM 5642
AS-629	BMO	UtilBrnch, BM 5642
AS-804	CO, MCAS	I & L Office, 455-6506
AS-843	CO, MCAS	I & L Office, 455-6506
AS-849	CO, MCAS	I & L Office, 455-6506
AS-850	BMO	UtilBrnch, BM 5642
AS-1001	BMO	UtilBrnch, BM 5642
AS-2001	BMO	UtilBrnch, BM 5642
AS-3000	CO, MCAS	I & L Office, 455-6506



<u>Building</u>	<u>Responsible for Operation</u>	<u>POC/Telephone Number</u>
AS-3620	CO, MCAS	I & L Office, 455-6506
AS-4125	BMO	UtilBrnch, BM 5642
AS-4151	BMO	UtilBrnch, BM 5642
BB-5	CG, 2d MarDiv	Fac0, 2516
BB-7	CO, MCES	S-4 Officer 7410
BB-10	CO, MCES	S-4 Officer 7410
BB-28	CO, MCES	S-4 Officer 7410
G-480	CG, 2d MarDiv	Fac0, 2516
G-640	CG, 2d MarDiv	Fac0, 2516
G-647	CG, 2d MarDiv	Fac0, 2516
G-770	CG, 2d MarDiv	Fac0, 2516
PT-5	Comm/Elect Officer, MCB	OPS Officer 2555
S-47A	BMO	UtilBrnch, BM 5642
TC-704	CG, 2d MarDiv	Fac0, 2516
TC-705	CG, 2d MarDiv	Fac0, 2516
TC-706	CG, 2d MarDiv	Fac0, 2516

## 4. Generator operation equipment.

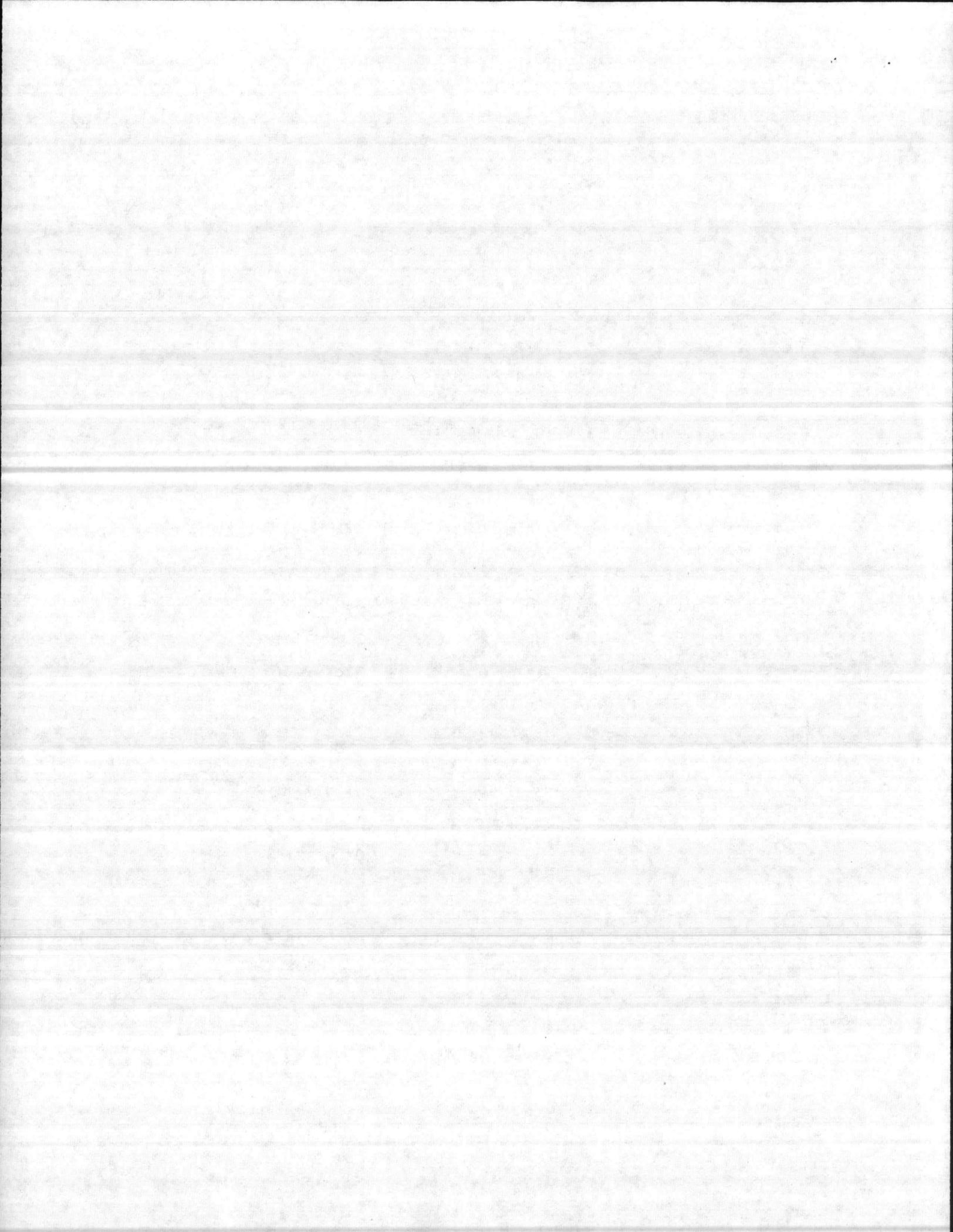
a. Start-up and shutdown times of auxiliary generators will be coordinated by a representative of the Utilities Branch, Base Maintenance.

b. Each major command will provide points of contact for each building with mobile electric/auxiliary power in order to enable the rapid dissemination of operational information.

c. All fuel costs associated with generator operation will be borne by the Commanding General, Marine Corps Base.

5. "Folding" Energy Alert signs will be "opened" (and "closed") at the below locations upon the advice of a representative of the Utilities Branch, Base Maintenance.

<u>Location of Sign</u>	<u>Responsible to Open/Close Sign</u>	<u>POC/Telephone#</u>
Main Gate	Base Maintenance	UtilBrnch, BM 5642
French Creek Area	CG, 2d FSSG	EngrSpt0, 3456
Paradise Point Housing	Director, Family Hsg	EnergyCon0, 3657
Entrance, Tarawa Terrace I and II	Director, Family Hsg	EnergyCon0, 3657
Entrance, Courthouse Bay Area	Area Commander	S-4, MCES 7410
Entrance, Rifle Range	Area Commander	S-4, RRDet 7186
Entrance, Montford Point	Area Commander	S-4, MCSSS 6142
Entrance, Camp Geiger	Area Commander	Deputy for Camp Affairs 0216
Entrance, MCAS (H), NR	CO, MCAS (H), NR	I & L Officer, MCAS (H), NR 455-6506



UTILITIES AND ENERGY COMMAND INSPECTION FORM

A. Command Program

1. Is an Energy Conservation Officer assigned in writing? \_\_\_\_\_

2. Does the command have all pertinent Utility and Energy Conservation Orders/Bulletins/  
Messages? \_\_\_\_\_

MCO 4100.4A

BO 11300.1G

3. Does the command have a Unit directive on Utility or Energy Conservation? \_\_\_\_\_

4. Has the command assigned Energy Conservation Coordinators for Divisions/Sections? \_\_\_\_\_

5. Has the command assigned Energy Conservation Monitors for each building? \_\_\_\_\_

6. Management of buildings with command's jurisdiction:

a. How many buildings are on the Base Plant Account for this unit? \_\_\_\_\_

b. How often is each building visited? \_\_\_\_\_

c. Does the command have knowledge of which buildings are heated and cooled (e.g.,  
central air, radiator, space heaters)? \_\_\_\_\_

d. Does the command have knowledge of which buildings are controlled by the Utility  
Monitoring and Control System? \_\_\_\_\_

7. Carpool Program

a. Does the command actively sponsor a carpool program? \_\_\_\_\_

b. If so, how is it administered? \_\_\_\_\_

8. Has the command requested Energy Inspections for it's major buildings? \_\_\_\_\_

9. Are there any incentives or awards for Energy Conservation ideas? \_\_\_\_\_

10. Is the command aware of any energy conservation projects scheduled within its area? \_\_\_\_\_

11. Motor Vehicle Mileage/Fuel Reduction

a. Mileage

(1) Commercial vehicle mileage this time last year \_\_\_\_\_

(2) Commercial vehicle mileage thus far this year \_\_\_\_\_

(3) Percent Change \_\_\_\_\_

b. Fuel Consumption

(1) Commercial vehicle fuel consumption this time last year \_\_\_\_\_

(2) Commercial vehicle fuel consumption thus far this year \_\_\_\_\_

(3) Percent Change \_\_\_\_\_

c. Vehicle Density (Commercial)

(1) Number of vehicles this time last year \_\_\_\_\_

(2) Present Number of vehicles \_\_\_\_\_

(3) Percent Change \_\_\_\_\_



B. Awareness

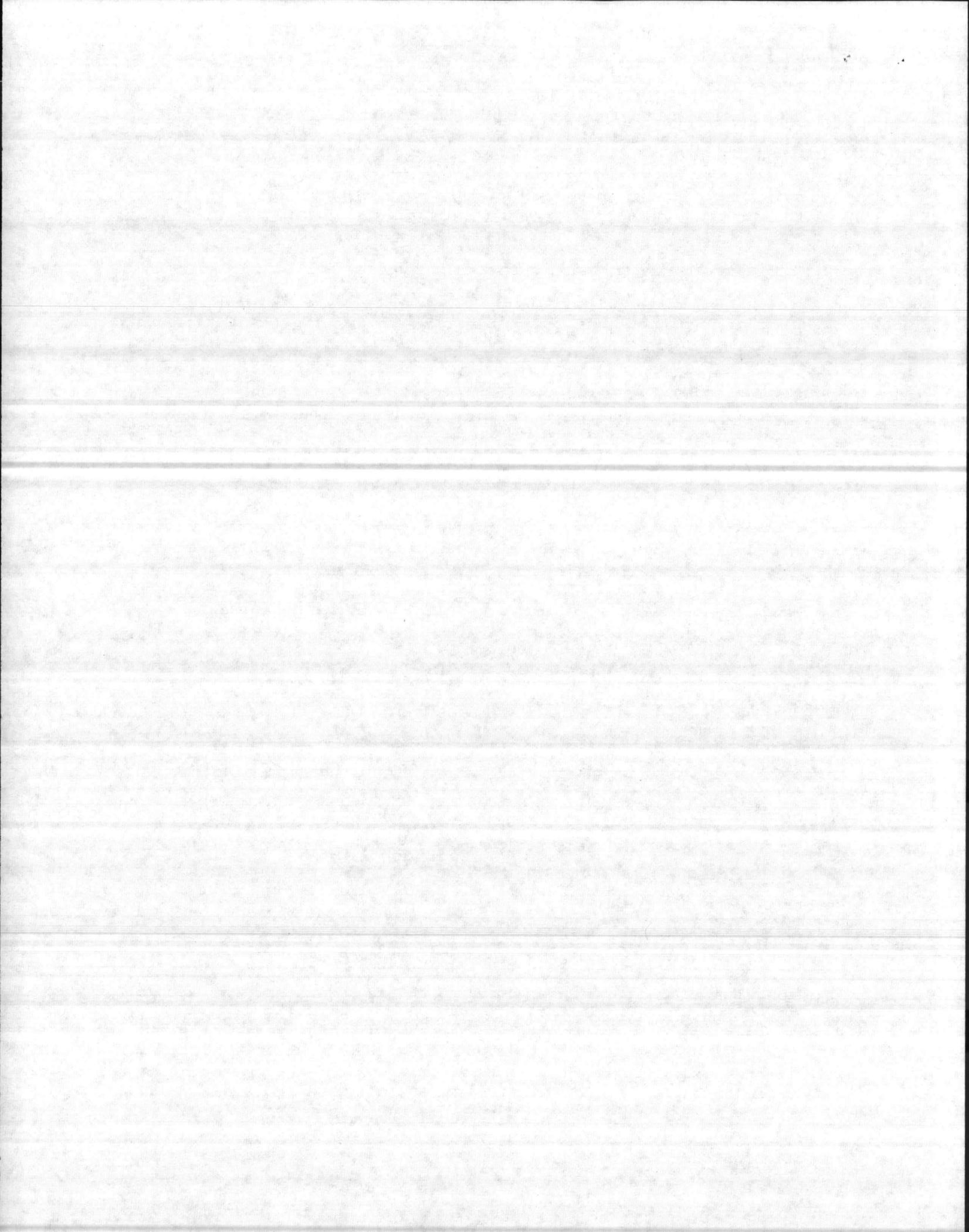
- 1. Is Energy Conservation information promulgated? \_\_\_\_\_
  - a. How? \_\_\_\_\_
  - b. When? \_\_\_\_\_
  - c. Where? \_\_\_\_\_
- 2. Are energy conservation meetings held for principal energy conservation personnel? \_\_\_\_\_
  - a. How? \_\_\_\_\_
  - b. Where? \_\_\_\_\_
  - c. Are records (MINUTES) kept of the meetings? \_\_\_\_\_
- 3. Are temperature standard notices posted in buildings? \_\_\_\_\_  
Is the information current? \_\_\_\_\_
- 4. Are temperature readings taken in buildings? \_\_\_\_\_
  - a. How often? \_\_\_\_\_
  - b. By whom? \_\_\_\_\_
- 5. Are the 65 /68 and 78 temperature guidelines being adhered to? \_\_\_\_\_

C. Accountability

- 1. Are units/sections formally inspected? \_\_\_\_\_
  - a. By whom? \_\_\_\_\_
  - b. How often? \_\_\_\_\_
- 2. Are records of energy conservation inspections and follow-up actions for discrepancies maintained by the unit? \_\_\_\_\_
  - a. Are warnings/citations or discrepancy notices issued for temperature violations? \_\_\_\_\_
  - b. Are outstanding work requests reconciled with Base Maintenance? \_\_\_\_\_
  - c. Are Energy Conservation work requests managed separately? \_\_\_\_\_
- 3. Are Energy Conservation reports required/submitted by subordinate units on a regular basis? \_\_\_\_\_

D. Heating

- 1. Are thermostats dependable, properly set and locked? \_\_\_\_\_
- 2. Are heat levels too high in the building? \_\_\_\_\_
- 3. Are spaces unnecessarily heated? \_\_\_\_\_
- 4. Are window or doors left open? \_\_\_\_\_
- 5. Are areas heated by space heaters where a central heat unit should be used? \_\_\_\_\_
- 6. Are spaces without thermostats that should have them? \_\_\_\_\_
- 7. Number of UMACS heat sensors? \_\_\_\_\_
- 8. Are Building(s)/Room(s) too cold? \_\_\_\_\_



E. Air Conditioning

- 1. Are thermostats dependable, properly set and locked? \_\_\_\_\_
- 2. Are spaces unnecessarily cooled? \_\_\_\_\_
- 3. Are windows or doors left open? \_\_\_\_\_
- 4. Is there any unauthorized use of window air conditioners? \_\_\_\_\_
- 5. Is there a building with window air conditioners that is a good candidate for a central air conditioning system? \_\_\_\_\_

- 6. Are unoccupied rooms air conditioned? \_\_\_\_\_
- 7. Could operating fans operate without compressors and adequately cool the building? \_\_\_\_\_

F. Electricity

- 1. Lighting
  - a. Are light levels correct for the task? \_\_\_\_\_
  - b. Are unused lights turned off? \_\_\_\_\_
  - c. Are fixtures, bulbs and tubes clean and operating? \_\_\_\_\_
  - d. Is switching flexible to permit shutoff of unneeded lights; for example, near windows? \_\_\_\_\_
  - e. Are show window lights shut off? \_\_\_\_\_
  - f. Would timer controls help cut light use? \_\_\_\_\_
  - g. Are all outdoor lights (except security lights) near windows? \_\_\_\_\_
  - h. Are walls and ceilings light-colored? \_\_\_\_\_  
Clean? \_\_\_\_\_
  - i. Is daylight used as much as possible? \_\_\_\_\_
  - j. Could more efficient light sources be installed? \_\_\_\_\_
  - k. Are lamps replaced on a group basis? \_\_\_\_\_

- 2. Heating
  - Are any electric space heaters being utilized? \_\_\_\_\_

G. Water

- 1. Is hot handwashing water necessary? \_\_\_\_\_
- 2. Are there water leaks or drips anywhere? \_\_\_\_\_
- 3. Can toilet-flushing water be reduced? \_\_\_\_\_
- 4. Are shower heads fixed at least flow? \_\_\_\_\_
- 5. Are showers needed? \_\_\_\_\_
- 6. Are hot water pipes insulated? \_\_\_\_\_





H. Structure

1. Windows and Outside Doors

- a. Do they fit? \_\_\_\_\_
- b. Are they weatherstripped and caulked? \_\_\_\_\_
- c. Can automatic door closers be installed? \_\_\_\_\_
- d. Are glass panes intact and tightly installed? \_\_\_\_\_

- e. Are drapes used effectively? \_\_\_\_\_
- f. Could vestibules be built? \_\_\_\_\_
- g. Could any windows be replaced by glass block? \_\_\_\_\_
- h. Would double-insulating glass be justified? \_\_\_\_\_

2. Construction

- a. Is insulation adequate and properly installed? \_\_\_\_\_
- b. Are all possible uses made of insulation? \_\_\_\_\_
- c. Would the addition of partitions permit reducing heated spaces? \_\_\_\_\_
- d. Are there any cracks to be caulked and sealed? \_\_\_\_\_

I. Office Operation

- 1. Are employees trained to practice energy conservation, especially custodial employees? \_\_\_\_\_
- 2. Are employees accustomed to dressing warmly? \_\_\_\_\_
- 3. Could rearranging desks vacate space which could be closed off? \_\_\_\_\_
- 4. Is there good thermostat discipline (or are they locked)? \_\_\_\_\_
- 5. Are unused spaces shut off 100 percent? \_\_\_\_\_
- 6. Is any rescheduling possible to permit shutdown of heating or cooling equipment for longer hours? \_\_\_\_\_
- 7. Has a study been made to determine where energy is being used, and how much by each means? \_\_\_\_\_
- 8. Is someone in charge of the local program, checking and rechecking and reporting to management regularly? \_\_\_\_\_
- 9. Are there frequent and regular reminders to employees about saving energy? \_\_\_\_\_
- 10. Have floor displays, window displays and handout pieces on energy savings been made available? \_\_\_\_\_

