



maintenance management order

SUBJECT: Energy Conservation

DATE: October 17, 2000

NO: MMO-079-00

TO: 1. All Maintenance Capable Offices
2. Area Maintenance Support Offices

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The purpose of this Maintenance Management Order (MMO) is to provide updated information for energy conservation efforts and emergency contingency plans.

In the July 2000, special issue of the Federal Energy Management Program newsletter, the Department of Energy (DOE) warned of the possibility of electrical generating and transmission problems during this year and continuing on through the next few years. The problems are created by the continuing increase in electrical demand while generating and transmission capacity remains stagnant.

In other recent publications by DOE, they warn of increasing prices in Natural Gas and Fuel Oil used for both building heating and electrical generation. Because of these circumstances, reexamination of, and updating your facility energy conservation and emergency contingency plans is necessary.

This MMO obsoletes MMO-004-75 dated August 2, 1974, titled Energy Conservation Techniques for use during the cooling season. It provides information for contingency planning during electrical abnormalities, and recommendations for energy conservation.

The attachments provide a process that sites can use to develop or update their Energy Conservation Plan and electrical emergency action plan.

Direct any questions or comments concerning this bulletin to the HelpDesk, Maintenance Technical Support Center, P.O. Box 1600, Norman OK 73070-1600; telephone FTS 2000 (405) 573-2123 or toll free (800) 366-4123.

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Attachment: 1. Energy Conservation Techniques
2. Energy Conservation Worksheet

ATTACHMENT 1**ENERGY CONSERVATION TECHNIQUES**

As mentioned, electrical supply problems have been created by the continuing increase in electrical demand while generating and transmission capacity remains stagnant.

The effects of this situation has resulted in (1) Rolling blackouts; (2) Voltage reductions; (3) Requests from utilities for voluntary reductions; (4) Interruptible power curtailments; and, (5) Requests from utilities for companies to operate emergency generators.

Rolling blackouts are unplanned losses of power, and can create a loss of power in large parts of the country. This is usually caused by a failure of transmission equipment due to over loads.

Part of the plan should include identifying load reduction measures for the facility. Look at separating loads into: (1) Life, health and safety, (2) Mission Critical, and (3) Non critical loads. It will be necessary to work with safety and operations when separating these loads and setting up a plan.

The safety of our employees when a facility is plunged into darkness should be part of your contingency plan. Under life and safety consider the necessary communications with building occupants that will be necessary if a sudden loss of power occurs. As occupants leave the building where will they go, who do they report to, and so on. Using the same procedure you have set up for a fire drill may work. Make sure emergency lights and exit signs are located in the proper place and in good working order.

Identify computers that have UPS's (uninterruptible power supply) connected that allows a proper shut down, and include this activity in your plan.

Other items to consider include, electric operated dock plates, conveyers, emergency diesel fire pumps, and security issues.

Address the activities required when power is restored. A plan to bring equipment back on line without creating internal problems (overloads) should be included. Chillers must not be allowed to automatically restart. Air handing units should be staged on, and not allowed to come on all at the same time. The same for water pumps. Identify equipment that will require software reloading or other activities involving computer operations will be necessary.

Voltage reductions are utility planned reductions where they reduce the voltage to everyone in their service area in order to keep power available. The utility company usually phones and asks if you can reduce electrical usage in your facility. This situation fits under mission critical, and plans should be made with operations personnel participating. A suggested format for your plan includes:

1. Inventory all electrical equipment including lighting, mail processing, and building equipment.
2. Determine the electrical power requirements of each piece of equipment.

3. Determine the operating hours for each piece of equipment and prepare a schedule showing this information. Include the power requirements for each item so you can determine the change in electrical usage that will occur if it is shut off.
4. Coordinate with operations personnel to determine which equipment operations can shut off and still meet mail deployment times.
5. Draw up an hourly operating plan for each day of the week showing what equipment can be shut off in case of a power problem.
6. Some mail processing equipment will still run under low voltage, but not sort correctly. This equipment should be identified and shut down so mail is not mis-sorted. The Small Parcel Bundle Sorter is one piece of equipment that will do this under low voltage. Other equipment will have to be identified by trial and error.
7. Non-critical loads should be identified and shut off. Maybe sections of the building could operate at reduced lighting.

Consider: it may be possible to turn off some of the airhandling units and maybe a chiller and some water pumps.

Identify the individuals that will carry out the necessary steps and make sure they know what to do and how to do it. Training and dry runs will help ensure the plan will work.

Additional energy conservation efforts will be needed to control rising costs of all energy. Natural Gas and Fuel Oil prices will continue to increase at a faster rate than in the past. This will cause electrical rates to increase too.

These additional efforts should include, keeping doors and windows closed, shutting off lights in office areas when not needed, and proper maintenance of heating and air conditioning equipment.

