

CHAPTER 7 ENERGY MANAGEMENT

GENERAL

Effective energy conservation programs are required to combat inflation and to retain a production capability that will ensure our standard of living. The cost of energy continues to rise, consuming an increasingly higher percentage of operating funds. We can expect these costs to continue to increase in the future. Without effective conservation programs, we cannot control costs and the resultant shortages of fuel and power will adversely affect mission accomplishment.

RESPONSIBILITIES

The TISO, FSS, or contract manager is responsible for implementing a conservation program at the activity level. To assure success, interest in the operation must be evident at all levels of command. Also, the TISO or FSS must have active support and guidance from the installation commander's office, to include the DOL, DEH, and the FA. Command emphasis, incentives, awards, and recognition are vital to the success and effectiveness of the program.

ACTION PLAN

To effectively manage an energy program, an action plan needs to be developed. The action plan should include the subjects below.

Program Introduction

A meeting should be scheduled with the organization or unit commander and the activities first line supervisors. Use this meeting to form a team to carry out the program and inform key personnel of the importance of energy management. Review the Army Food Service Energy Management Program Manual (AFSEM),

1 August 1991, and the locally established installation energy plan.

Conduct Equipment Maintenance Audit

Conduct an evaluation of the TISA or dining facility equipment with a DEH representative to make sure that the equipment is operating efficiently. Correct deficiencies noted, and replace equipment that is not economically repairable. Energy consumption is higher when equipment is not functioning properly.

Track Equipment Usage

Track usage of equipment for one workweek to establish an energy usage pattern. The AFSEM provides forms and details on the method to establish the data base. Compare all future tracking efforts to this base to determine the rise and fall of energy used in the dining facility.

Conduct the Kickoff Meeting

Meet with all TISA or food service personnel to introduce the program. Explain how the program is important to the Army's overall energy management efforts and how it will change operating methods and schedules to decrease energy consumption.

Establish an Energy Schedule

Establish an energy schedule for each piece of equipment. Use the on and off times recorded during the initial tracking period as a guide. Record usage time on decals displayed on equipment. The guidance and suggestions in Figure 7-1 (page 7-2) will help you carry out the action plan.

1. Preheat only the equipment that will be used.
2. Preheat equipment just before using.
3. Reduce temperature or turn equipment off during slack serving periods.
4. Use full production capacity when possible or practical.
5. Select the correct size of equipment for cooking.
6. Use equipment properly.
7. Maintain equipment in good repair.
8. Keep equipment clean.
9. Make sure door gaskets on refrigeration units are clean and fit airtight.
10. Place refrigerated and frozen foods (perishables) into refrigerators or freezers immediately upon arrival.
11. Do not place hot foods in the refrigerator or freezer.
12. Do not hold refrigeration doors open for long periods of time.
13. Keep evaporator coils free of excess frost.
14. Keep condenser coils free from dust or lint.
15. Operate ventilation equipment only when required; operate on low speed if possible, and keep filters clean.
16. Use doorway closures on all walk-in refrigerators.

Figure 7-1. Guidance and action plan suggestions

Tracking and Follow-up

Track energy use until the energy reduction goal of 15 percent of base is achieved. After the goal is achieved, continue to track usage to ensure energy savings are maintained. Post a weekly summary of equipment usage to encourage energy awareness. Discuss the program at daily cook's and employee's meetings.

BLACKOUTS, BROWNOUTS, AND GAS SHORTAGES

A very important part of energy management that must not be overlooked is what to do during

electrical blackouts, brownouts, gas shortages, or complete power failures. Only when personnel are properly prepared will the facility continue to operate smoothly during such an emergency.

Blackouts

Maintain a stock of flashlights and batteries. These will be needed to find articles in walk-ins and storerooms where emergency lighting is not available. Keep candles (with holders) on hand to light kitchen and dining and service areas.

During a power failure, keep freezers and refrigerators closed as much as possible.

Keep disposable dishes and utensils on hand.

Plan to keep sterno on hand so that if hot food can be prepared, it can be kept warm.

Decide what will be served as quickly as possible.

Brownouts and Gas Shortages

These are situations in which power supplies are curtailed slightly or sharply but not cut completely.

You will need to decrease menu selections. The fewer items you prepare, the less energy you will use.

Serve stews and soups. These can be prepared in one pot and contain a complete meal.

Use as many canned items as practical. Normally, they are precooked and require limited heating time.

If you serve potatoes, use instant or dehydrated.

For dessert, use fruit.

MENU SUGGESTIONS (RESTRICTED ENERGY)

Curtailed preparation and cooking capabilities could mean less varied entree selections. To compensate for this, use as many authorized canned

and precooked convenience items as possible. Use such canned items as beef with barbecue sauce, chili con carne, ravioli with meat sauce, roast beef hash, and corned beef hash. When possible, use canned B Ration items rather than A Ration items. Some items such as cold meat trays, salads, cheeses, fruits, and snacks require minimal energy output.

Cold Meat Trays

Prepare appetizing cold meat trays using sliced canned ham, cooked boneless turkey, salami, pickle and pimento loaf, bologna, and pastrami.

Salads and Cheeses

Tasty and nutritious salads can be made using an assortment of cheeses such as American processed, natural cheddar, natural or processed Swiss, and natural smoked provolone. The cheese can be sliced, cubed, or served in strips. In addition, cream cheese and cottage cheese will add texture, contrast, and extra protein to your menu.

Vegetables

Round out the menu by adding items that are routinely on hand such as marinated canned vegetables; canned beets, asparagus, beans, and carrots; potato or corn chips; canned fruit; fresh fruit; hard-boiled eggs (if they can be cooked); and pickles and relishes.

Soups

You might use such dehydrated soups as tomato-vegetable with noodles, dehydrated onion, dehydrated beef-flavored with noodles and vegetables, or dehydrated chicken-flavored with noodles. Instant soup and gravy bases, such as chicken, beef, and ham-flavored are nutritious, and require little energy to prepare.

Beverages

Beverages to compliment the meals are tea or instant coffee (if water can be boiled); milk (from a gravity flow milk dispenser); beverage bases; and instant orange and grapefruit juices. Various juices provide many essential nutrients when menu selections are temporarily limited.

ENERGY PLAN EVALUATION

Energy management depends on the involvement of everyone in the TISA or dining facility. A team effort is required. The FA also plays a key role in energy management. During visits he may point out ways in which energy might be saved. Energy conservation measures involving the modification, repair, or replacement of equipment and those involving the maintenance of facilities must be coordinated with the engineers. Make energy efficiency a top priority consideration when planning TISA or dining facility construction or renovation projects and in scheduling equipment replacement.