BOARD OF EDUCATION OF THE CITY OF NEW YORK DIVISION OF SCHOOL FACILITIES OFFICE OF BUILDING SERVICES

May 22, 2003

OFFICE OF BUILDING SERVICES CIRCULAR NO. 11 - 2002/03

NOTE: All Circulars are to be kept in a permanent file

TO ALL CUSTODIAN ENGINEERS

1. AIR CONDITIONERS

The Air Conditioning Season officially begins on Thursday, May 29, 2003 and ends on Wednesday, September 24, 2003. Preliminary start-up of all air conditioning equipment is to be implemented immediately in order to identify system problems. Report any issues to your Plant Manager. Except for preliminary testing purposes, air conditioners should not be turned on prior to May 29.

The following operation and maintenance guidelines are to be adhered to for this upcoming air conditioning season.

Window Air Conditioners

- a. Pre-season filter maintenance on all window air conditioners is critical to the efficient performance of the unit. Filters should be cleaned prior to the air conditioning season and as often as necessary thereafter.
- b. Air conditioners should only be used in occupied areas when interior temperatures reach 78 degrees Fahrenheit.
- c. Temperature "settings" on window air conditioners should be maintained at no less than 78 degrees Fahrenheit. Set thermostats accordingly.
- d. Window air conditioners should <u>NOT</u> be set on the "CONSTANT RUN" position.
- e. On extremely hot days, fresh air louvers should be in the "FULLY CLOSED" position.
- f. Keep room doors and windows closed when the air conditioner is operated.
- g. If a window air conditioner is not functioning properly, the custodian must perform basic troubleshooting to address the problem.

Is there power?

Is the unit plugged in and turned on? Have you initiated the following protocol prior to calling the Duty Plant

- Manager?
- Turn off circuit breaker.
- Turn off compressor and place unit in fan mode only.
- Turn on circuit breaker.

After operating for three (3) minutes in fan mode only, turn the unit on to cool.

If the problem persists, all requests for repairs should be made through the Duty Plant Manager.

<u>NOTE</u>: Only classroom window air conditioners that were installed for a summer school program should be reported to the Duty Plant Manager. All other window air conditioners will continue to be the responsibility of the respective District Office.

When calling the Duty Plant Manager, please provide the following information:

Is it a Window, Portable or Central Air Conditioning Unit?

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AIR CONDITIONERS, Continued

If it is a Window Air Conditioning Unit:

- District, building code and room number (Educational space only)
- Manufacturer of unit
- Serial number of unit
- Size of unit (BTU value)
- Description of problem (Trips breaker, blows hot air, etc.)

If it is a Portable Air Conditioning Unit:

- Is there power?
- Is the unit plugged in and turned on?
- Has the drip pan been emptied?
- Are the vent hoses connected?
- District, building code and room number.
- Manufacturer of unit.
- Serial number of unit.
- Description of problem (Trips breaker, blows hot air, etc.)

If it is a Central Air Conditioning System:

Generally, air conditioning units less than sixty (60) tons, no longer have service contracts. Custodian Engineers will perform all general maintenance and minor repairs to this category of equipment. The scope of service will include start-ups and shutdowns, filter and belt changes, cleaning of accessible coils, lubrication and general maintenance. All work shall be performed in accordance with the manufacturer's recommendations. In those instances where the Custodian Engineer is unable to provide the service(s), he/she will discuss issue with their Plant Manager. Contingent upon the urgency of the work required, the Plant Manager will either have the Custodian Engineer generate a work request through a PO18, or as an emergency. Skilled trades personnel and requirement contracts will be available to support Custodian Engineers with any repairs that are beyond their scope of service.

Three different "Routine Maintenance Checklists" have been provided with this circular. Each one represents the various types of systems found in our buildings. Utilize the one(s) that best represent your building's equipment. These check lists identify industry standards for the frequency of equipment inspections that are to be performed as indicated. They are to be utilized as a guide during your maintenance and operational inspections. All inspections and preventive maintenance work should be logged accordingly.

In the near future the Division of School Facilities will be initiating in-service air conditioning training for those Custodian Engineers who require it. This program will be designed to assist Custodian Engineers in start-up and shut-down procedures, and general maintenance and repair of equipment within their assigned buildings. Additional information concerning this program will soon follow.

All central air conditioning units over sixty (60) tons should have a service contract. (Please advise your Plant Manager if there is not a service contract in place.) In those cases where there is no service contract, and the unit is malfunctioning, notify the Duty Plant Manager. Pre-season preventive maintenance for units above sixty (60) tons should have already been performed by a service contractor. Contact William Jockers at (718) 391-6623 to report any problems.

When there is a service contract in place all repair requests should be phoned into the service contractor and the Duty Plant Manager. You should inform the Duty Plant Manager of the time you notified the service contractor. Advise the Duty Plant Manager of any delays in the contractor's response to your service request.

Martin Oestreicher Chief Executive Division of School Facilities

Enclosure: Maintenance Check Lists

JOC/SC:ns

<u>N.Y.C.D.O.E.</u> <u>Division of School Facilities</u> <u>HVAC</u> <u>Routine Maintenance Checks</u>

Location: _____ *Unit #_____ Date:____*

Equipment- Heat Pumps, Portable Type AC, Univents, Fan Coil Units (unitary equipment).

Start up checks – Isolate main power at disconnect switch.

Use the frequency outlined after start up.

•	Check overall condition of equipment such as oil leaks. A refrigerant leak leaves traces of oil. <i>Weekly</i>	
٠	<u>Filters</u> - check filter condition (clean/replace if clogged or dirty). Replace with arrow pointing in the direction of air flow. <i>Monthly</i>	
٠	Drains – check condensate drains – clean if clogged. Monthly	
•	Insure supply and return grilles are not obstructed. Monthly	
٠	Clean indoor coil, fin tubes, oil motor and bearings, and replace worn and cracked belts where applicable. Inspect and clean blower. <i>Quarterly</i>	
•	Check for traces of oil leaks. Insure all service/access valve caps are in place and are tight. <i>Quarterly</i>	
•	Outdoor coil - clean if dirty. Take care not to damage fins. Semi-annually	
•	Under normal conditions the condenser fan and evaporator blower motors have a five year supply of lubricant. Check for free rotation and lubricate if necessary <i>Annually</i>	

Report any unusual noise and excessive vibrations to the plant manager immediately.



DEPARTMENT OF CITYWIDE ADMINISTRATIVE SERVICES OFFICE OF THE COMMISSIONER

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Martha K. Hirst Commissioner

TO:

FROM:

Citywide Personnel Services

Facilities Management & Construction

Municipal Supply Services

Real Estate Services

Citywide Equal Employment Opportunity

Citywide Occupational Safety & Health

> Transportation Services

The City Record

All Agency Heads

Martha K

Martha K. Hirst

DATE: April 28, 2006

SUBJECT: Summer Energy Conservation Rules and Guidelines

Please help conserve energy this summer by following these rules and guidelines.

- Run air-conditioners only during the official season, from May 26th to September 22nd. The DCAS Office of Energy Conservation (OEC) has reviewed billing periods and determined that the City's air-conditioning season will officially begin on May 26th, 2006. Use of air-conditioners prior to this date is unauthorized, as it will result in an electrical demand charge for which funding has not been budgeted. The airconditioning season will end on September 22nd, 2006. Use of air-conditioners before or after the air-conditioning season, even for one-half hour, could cost the City as much as \$600,000 in demand charges.
- 2. Maintain air conditioners in good condition and with thermostats set to no lower than 78 F, to conserve energy.

Attached are air conditioning guidelines for both window air conditioners and central systems. Please distribute to both employees and facility managers.

3. Take additional measures to reduce electricity use on summer 'Peak Demand' days. Facilities that can participate formally in the Peak Demand reduction program earn payments for their agency. But even if your facility does not qualify for formal participation, please conserve more when you see Peak Demand day notices. We all need to contribute to preventing brownouts and blackouts.

For any questions on these matters, please contact Stuart Barth, P.E., at (212) 669-8722, or Richard Appelbaum, R.A., (212) 669-8709. Agency Energy Liaison Officers are encouraged to check the OEC website at www.nyc.gov/dcas-oec. That site has copies of this material.

C: Agency Energy Liaison Officers Agency Fiscal Officers D. Brosen; S. Cohen/DCAS DFMO Andy Ricci/OMB

CityStore

SUMMER ENERGY-SAVING TIPS

AIR CONDITIONING

The City's air-conditioning season for 2006 runs from May 26 through September 22. Usage before May 26 or after September 22 may result in an electrical demand charge for which funding has not been budgeted. The following guidelines have been established for the use and maintenance of air-conditioning.

WINDOW AIR-CONDITIONERS

- 1. Filter maintenance on all window air-conditioners is critical to the efficient performance of the airconditioner, and should be performed prior to the start of the air-conditioning season.
- 2. Air conditioners shall be used only when rooms are occupied and when interior temperatures reach 78 degrees F.
- 3. Maintain temperature settings on air-conditioners at no less than 78 degrees F.
- 4. Window air-conditioners should NOT be set on the constant run position.
- 5. On extremely hot days, fresh air louvers should be in the "closed position."
- 6. Keep room doors and windows closed when air-conditioning is operating.
- 7. If room air-conditioners are to be purchased, it should be done through the DCAS Division of Municipal Supply Services whenever possible. These units are energy-star rated or equivalent, as required by law. Purchase the unit with the highest energy efficiency ratio (EER) available.

CENTRAL AIR-CONDITIONING

- 1. All filters should be cleaned or replaced as frequently as required to maintain maximum system efficiency.
- 2. Indoor temperatures should be maintained at no less than 78 degrees F.
- 3. All units should be serviced to insure maximum efficiency of operation. Special attention should be given to belt drives, controls and refrigerants.
- 4. All control settings and time mechanisms should be checked and calibrated PRIOR to the start of the cooling season.
- 5. Air-conditioning should be used only when the building is occupied.
- 6. In non-hospital settings, outside make-up air should be reduced.

OTHER WAYS TO SAVE ENERGY

- 1. Turn off overhead lights in areas where daylight is sufficient or desk lighting is available.
- 2. Turn off computers, copiers and other electric equipment when they are not being used.
- 3. Remove anything that blocks air outlets of air conditioners, to maximize air circulation.
- 4. Keep window shades and blinds lowered and closed to reduce the heat and sun load at every window.

New York City Agency Energy Liaison Officers should contact the DCAS Office of Energy Conservation at (212) 669-8722 for any questions.