

1 **ALEXANDRIA CITY PUBLIC SCHOOLS**
2 **ENERGY CONSERVATION AND BUILDING MANAGEMENT REGULATIONS**
3

4 **Responsibilities:**
5

- 6 1. Every person is expected to be a conscientious “energy saver” as well as an “energy
7 consumer.”
- 8 2. Each staff member is responsible for implementing these guidelines during the time that
9 they are present in ACPS facilities.
- 10 3. The building engineer or Building Systems Manager is responsible for building systems
11 control of all spaces.
- 12 4. The last person to leave a building in the evening is responsible for verification of the
13 nighttime shutdown. (This includes activation of intrusion alarms.)
- 14 5. Building administrators are responsible for taking the requisite steps to ensure efficiency
15 and conservation of energy usage within their building.
- 16 6. Facilities and Operations is responsible for ensuring RFP criteria for design proposals for
17 each major construction project, both new construction and renovations of existing
18 buildings, meet the criteria provided by the U.S. Green Building Council’s Leadership in
19 Energy and Environmental Design (LEED) program and align with the City of
20 Alexandria’s 2019 Green Building Policy as amended, .
- 21 7. Facilities and Operations is responsible for ensuring energy-saving designs are documented
22 in the architectural evaluation and comply with Educational Specifications approved by the
23 School Board, in alignment with the Virginia Department of Education’s Guidelines for
24 School Facilities in Virginia Public Schools (2020).
25

26 **General:**
27

- 28 1. **Unless instructed otherwise by Facilities & Operations staff**, classroom doors and
29 windows should remain closed when HVAC is operating. Doors between conditioned
30 space and non-conditioned space should remain closed at all times.
- 31 2. All electronic devices should be programmed for the “energy saver” mode using the power
32 management feature.
- 33 3. Personal appliances and other equipment are not permitted in any teaching spaces.
34 Equipment not provided by ACPS must be approved for use in writing by Facilities and
35 Operations.
36

37 **Air Conditioning Equipment:**
38

- 39 1. Occupied temperature settings for air conditioning is not set below 74°F.
- 40 2. During unoccupied times, the air conditioning equipment settings default to their respective
41 unoccupied set-points.
 - 42 a. Air conditioning start times may be adjusted by Facilities and Operations
43 (depending on weather conditions) to ensure classroom comfort when instruction
44 begins.
- 45 3. Relative humidity levels do not exceed 60% for any 24-hour period.

- 46 4. Use of air conditioning during summer months should be reduced to conserve energy but
- 47 maintain indoor air quality..
- 48 5. Dry food and vaccine storage areas will be maintained within code requirements.
- 49 (Temperature range between 55°F - 75°F and relative humidity range between 35% - 60%).

51 **Heating Equipment:**

- 52
- 53 1. Occupied temperature settings for heating is not above 72°F.
- 54 2. The unoccupied temperature setting is 55°F - 60°F (i.e., setback), unless adjusted for indoor
- 55 air quality.
- 56 3. During the spring and fall when there is no threat of freezing, all forced air heating systems
- 57 should default to their respective unoccupied set-points during unoccupied times. Hot
- 58 water heating systems should default to their respective unoccupied set-points using the
- 59 appropriate loop pumps.
- 60 4. All domestic hot water systems will be set no higher than 120°F or 140°F for cafeteria and
- 61 kitchen service.

62

63 Cooling Season Occupied Set Points: 74°F - 78°F

64 Unoccupied Set Point: 80°F

65 Heating Season Occupied Set Points: 68°F - 72°F

66 Unoccupied Set Point: 55°F

67

68 Cooling Season Occupied Set Points: 74°F - 78°F

69 Unoccupied Set Point: 85°F

70 Heating Season Occupied Set Points: 68°F - 72°F

71 Unoccupied Set Point: 55°F

72

73

74 In accordance with ASHRAE 55 “Thermal Conditions for Human Occupancy”

75

76 **Lighting:**

- 77
- 78 1. All unnecessary lighting in unoccupied areas will be turned off. All staff should make
- 79 certain that lights are turned off when leaving the classroom or office when empty. Utilize
- 80 natural lighting and motion detector light switches where appropriate.
- 81 2. All outside lighting is off during daylight hours utilizing both time-clock and photo-sensor
- 82 technologies.
- 83 3. Gym lights should not be left on unless the gym is being utilized.
- 84 4. All lights, with the exception of emergency lighting, will be turned off when the space is
- 85 done being used for the day. Custodians will turn on lights only in the areas in which they
- 86 are working.

87

88 **Water:**

- 89
- 90 1. All plumbing, building envelope leaks and moisture infiltration must be reported through
- 91 work orders or emergency notification, if appropriate, and repaired immediately.

- 92 2. Grounds watering should only be done between 4am-10am. Ensure that the water service
93 authority rate schedule accommodates the distinction between potable/domestic use and
94 ancillary uses which do not discharge into sanitary sewer systems.
95 3. Sub-meters will be installed on irrigation and cooling tower supply lines to eliminate sewer
96 charges.

97
98 Revised: April 21, 2016

99
100
101 Cross Refs.: FA Facilities Development
102 FEA Educational Facilities Specifications
103 FECBA Energy Efficient Construction

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- 7 consumer.”
- 8 2. Each staff member is responsible for implementing these guidelines during the time that
- 9 they are present in ACPS facilities~~the classroom or office.~~
- 10 3. The building engineer or Building Systems Manager is responsible for building systems
- 11 control of all spaces~~common areas, i.e. halls, cafeteria.~~
- 12 4. The last person to leave a building in the evening is responsible for verification of the
- 13 nighttime shutdown. (This includes activation of intrusion alarms.)
- 14 5. Building administrators are responsible for ~~will take~~ taking the requisite steps to ensure
- 15 efficiency and conservation of energy usage within their building.
- 16 6. Facilities and Operations is responsible for ensuring RFP criteria for ~~d~~Design proposals for
- 17 each major construction project, both new construction and renovations of existing
- 18 buildings, ~~that must~~ meet the criteria provided by the U.S. Green Building Council’s
- 19 Leadership in Energy and Environmental Design (LEED) program and align with the City
- 20 of Alexandria’s 2019 Green Building Policy as amended.
- 21 7. Facilities and Operations is responsible for ensuring ~~e~~Energy-saving designs ~~shall be~~ are
- 22 documented in the architectural evaluation and ~~shall~~ comply with Educational
- 23 Specifications ~~as determined by the Virginia Department of Education and~~ approved by
- 24 the School Board, in alignment with the Virginia Department of Education’s Guidelines
- 25 for School Facilities in Virginia Public Schools (2020).

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27 General:

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- 29 ~~1. Unless instructed otherwise by Facilities & Operations staff, Classroom doors and~~
- 30 windows shall ~~should~~ remain closed when HVAC is operating. Doors between conditioned
- 31 space and non-conditioned space should remain closed at all times. ~~(i.e., between halls and~~
- 32 ~~gym)~~
- 33 ~~2.1. All exhaust fans should be turned off daily.~~
- 34 2. All electronic devices should be programmed for the “energy saver” mode using the power
- 35 management feature.
- 36 3. Personal appliances and other equipment are not permitted in any teaching spaces.
- 37 Equipment not provided by ACPS must be approved for use in writing by Facilities and
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- 43 2. During unoccupied times, the air conditioning equipment settings ~~shall~~ default to their
- 44 respective unoccupied set-points.

~~2-3~~ Air conditioning start times may be adjusted by Facilities and Operations (depending on weather conditions) to ensure classroom comfort when instruction begins.

~~3.a~~ Outside air dampers will be closed during unoccupied times, as appropriate.

~~4.3~~ Relative humidity levels ~~shall not do not~~ exceed 60% for any 24-hour period.

~~5.4~~ Use of air conditioning during summer months should be reduced to conserve energy but maintain indoor air quality minimized and limited to areas that are being used by students and staff.

~~6.5~~ Dry food and vaccine storage areas will be maintained within code requirements. (Temperature range between 55°F - 75°F and relative humidity range between ~~—~~ 35% - 60%).

Heating Equipment:

1. Occupied temperature settings for heating ~~shall is not be~~ above 72°F.
2. The unoccupied temperature setting ~~shall be is~~ 55°F - 60°F (i.e., setback), unless adjusted for indoor air quality. This may be adjusted to a 60°F setting during extreme weather.
3. During the spring and fall when there is no threat of freezing, all forced air heating systems should default to their respective unoccupied set-points during unoccupied times. Hot water heating systems should default to their respective unoccupied set-points using the appropriate loop pumps.
4. All domestic hot water systems will be set no higher than 120°F or 140°F for cafeteria and kitchen service.

Commented [1]: unoccupied cooling temp 80*

Cooling Season Occupied Set Points: 74°F - 78°F

Unoccupied Set Point: 80°F

Heating Season Occupied Set Points: 68°F - 72°F

Unoccupied Set Point: 55°F

<p>Cooling Season Occupied Set Points: 74°F - 78°F Unoccupied Set Point: 85°F Heating Season Occupied Set Points: 68°F - 72°F Unoccupied Set Point: 55°F</p>

In accordance with ASHRAE 55 “Thermal Conditions for Human Occupancy”

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91 [done being used](#) ~~students and staff leave~~ for the day. Custodians will turn on lights only in
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