

/19/99
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FILE NO. 990443

ORDINANCE NO. 148-99

1 [RESOURCE-EFFICIENT CITY BUILDINGS]
2 **AMENDING PART I OF THE SAN FRANCISCO MUNICIPAL CODE (ADMINISTRATIVE**
3 **CODE) BY ADDING A NEW CHAPTER 82 ESTABLISHING RESOURCE EFFICIENCY**
4 **REQUIREMENTS FOR CITY-OWNED FACILITIES AND CITY LEASEHOLDS.**

5
6 Note: This entire section is new.

7 Be it ordained by the People of the City and County of San Francisco:

8 Section 1. Part I of the San Francisco Municipal Code (Administrative Code) is hereby
9 amended by adding a new Chapter 82, Sections 82.1 to 82.7, to read as follows:

10 **CHAPTER 82**

11 **RESOURCE EFFICIENCY REQUIREMENTS FOR CITY-OWNED FACILITIES AND CITY**
12 **LEASEHOLDS**

13 **SEC. 82.1 FINDINGS AND PURPOSE.** The Board of Supervisors finds that:

14 (a) The planning, design, construction, and operation of the City's buildings, facilities
15 and leaseholds can have a significant positive effect on the City's sustainability. An objective
16 set out in the Sustainability Plan for the City of San Francisco is to establish a plan for
17 promoting resource-efficient building design of the City's buildings in order to increase their
18 efficiency, save City financial resources, and to reduce the negative environmental impact of
19 construction, demolition and operation of buildings.

20 (b) According to World Watch Institute, construction, demolition and operation of
21 buildings collectively consume up to 4% of the earth's energy and other natural resources.

22 (c) San Francisco's design and building decisions have a significant impact on the
23 prudent use of the City's energy and water supplies, the cost of remediating hazardous
24 materials conditions, the health and productivity of its employees, transportation choices of
25

**SUPERVISORS Ammiano, Bierman, Leno, Katz, Newsom and Yee **
BOARD OF SUPERVISORS

1 city employees and members of the public who visit municipal buildings, City facilities and
2 City leaseholds, and the rate at which the City's landfill capacity is depleted.

3 (d) The California Integrated Waste Management Act (commencing with Public
4 Resources Code section 40000) requires that local governments develop source reduction,
5 reuse, recycling, and composting programs to reduce the tonnage of solid waste disposed in
6 landfills by 50 percent by the year 2000. Construction, demolition, and land-clearing debris
7 generated by public works construction are among the materials targeted by San Francisco to
8 achieve these state-mandated diversion rates. Construction and demolition debris account for
9 a significant portion of the mixed solid waste disposed of at landfills.

10 (e) The lack of adequate areas for collecting and loading recyclable materials is a
11 significant impediment to diverting solid waste and creates an urgent need for state and local
12 agencies to address space allocation for solid waste source reduction, recycling, and
13 composting activities.

14 (f) Planning and design decisions made by the City in the construction and remodeling
15 of its facilities and leaseholds can result in significant cost savings to the City over the life of
16 such facilities and leaseholds. Examples range from the San Francisco Public Utilities
17 Commission's ("PUC") estimate of \$22 million in lifetime savings over the next ten years for
18 energy conservation measures in \$1 billion worth of construction, to its estimate of \$200,000
19 in savings per year for converting the toilet stock in City-owned buildings to low-flush toilets.

20 (g) A building that utilizes resource-efficient building principles for indoor air quality,
21 thermal comfort, natural lighting, and other ambiance factors can increase the productivity of
22 City staff. Recent studies published by Kodansha International, cited in "The Economics of
23 Green Buildings" by David Gottfried, have shown that buildings with good overall
24 environmental quality, including effective ventilation, natural or proper levels of lighting, indoor
25 air quality, and good acoustics, can increase worker productivity by six to 16 percent.

1 (h) In adopting the requirements set forth in this legislation, the Board of Supervisors
2 recognizes that while the resource-efficient building requirements may entail increased initial
3 capital expenditures, compliance with the requirements will result in substantial long-term net
4 benefits to the City's citizens and environment.

5 (i) Development of many of the specific criteria and requirements needed for resource-
6 efficient buildings and construction is a highly technical and complex task that will require
7 extensive coordination on the part of various City departments. However, there are some
8 requirements that may be implemented now. It is in the best interests of the City and its
9 residents to begin implementing a resource efficiency program for City-owned facilities and
10 leaseholds, including requirements that do not require a lengthy development process, as
11 soon as possible. To this end, this Chapter establishes resource efficiency requirements for
12 City-owned facilities and City leaseholds and a Pilot Program for the resource-efficient
13 construction of certain selected City construction projects. It is the intention of the Board of
14 Supervisors to amend this Chapter in the future to include more detailed technical standards
15 and procedures for implementing the standards.

16 **SEC. 82.2. DEFINITIONS.** The following terms shall have the meanings set forth
17 below.

18 (a) "Building" means:

19 (1) Any structure used for support or shelter of any use or occupancy. "Structure"
20 means that which is built or constructed, an edifice or building of any kind or any piece of work
21 artificially built or composed of parts joined together in some definite manner and permanently
22 attached to the ground.

23 (2) "Building" includes office buildings and other structures wherein things may be
24 grown, made or produced, kept, handled, stored or disposed of. "Building" also includes
25 marinas, outdoor recreation areas, and parking facilities.

1 (3) "Building" does not include machinery, equipment, or appliances installed for
2 manufacture or process purposes only, any construction installation that is not part of a
3 building, or any tunnel, roadway or bridge, or any vehicle or mobile equipment.

4 (b) "City Department" means any department of the City and County of San Francisco.
5 City Department does not include any other local agency or any federal or State agency,
6 including but not limited to the San Francisco School District, the San Francisco Community
7 College District, the San Francisco Redevelopment Agency and the San Francisco Housing
8 Authority.

9 (c) "City-owned Facility" means any building owned by the City and County of San
10 Francisco. "City-owned Facility" does not include City-owned facilities or portions thereof that
11 the City leases to non-City entities, except when the City enters into a new lease or other
12 similar agreement with a new tenant executed following 90 days from the effective date of this
13 ordinance. When the City enters into a new lease with a new tenant, the City Department
14 responsible for executing the new lease may, in its sole discretion, grant a waiver from the
15 requirements of this Chapter.

16 (d) "City Project Engineer" means that person who is in charge of site operations for a
17 given City Construction Project.

18 (e) "Commission" means the Commission on the Environment.

19 (f) "Construction Project" means any construction activity, including renovation or
20 remodeling, at a City-owned Facility, Existing City Leasehold, or New City Leasehold, for
21 which a building permit is issued at any time following 90 days after the effective date of this
22 Chapter.

23 (g) "Department" means the Department of the Environment.

24 (h) "Director" means the Director of the Department of the Environment or his or her
25 designee.

1 (i) "Existing City Leasehold" means that portion or portions of any building that is
2 leased or otherwise occupied, but not owned, by the City and County of San Francisco or any
3 City Department for a term of one year or more pursuant to a written agreement that has been
4 executed at any time up until 90 days after the effective date of this ordinance.

5 (j) "New City Leasehold" means that portion or portions of any building that is leased or
6 otherwise occupied, but not owned, by the City and County of San Francisco or any City
7 Department for a term of one year or more pursuant to a written agreement that is executed or
8 renewed at any time following 90 days from the effective date of this ordinance. "New City
9 Leasehold" does not include common area portions of a building that are not exclusively
10 leased or otherwise occupied by a City department.

11 (k) "Resource-Efficient Building Practices" means design, construction, renovation,
12 operation and reuse of buildings in a resource-efficient and energy-efficient manner.
13 Resource-efficient buildings and other facilities exhibit a high level of environmental, economic
14 and engineering performance, including energy and water conservation, indoor environmental
15 quality, materials efficiency, occupant health and productivity, transportation efficiency,
16 minimized use of toxic materials and minimized production of hazardous waste, deterrence to
17 pest infestation, and reduced impact on ecosystems.

18 (l) "PUC" means the Public Utilities Commission of the City and County of San
19 Francisco.

20 (m) "Recycling Area" means space allocated for collecting, storing, and loading
21 recyclable materials. Such areas shall be able to accommodate receptacles for recyclable
22 materials.

23 **SEC. 82.3 RESOURCE EFFICIENT BUILDING PROGRAM** (a) Establishment and
24 Purpose. There is hereby created within the Department of the Environment a Resource-
25 Efficient Building Program. The purpose of the Resource-Efficient Building Program is to:

**SUPERVISORS Ammiano, Bierman, Leno, Katz, Newsom and Yee **
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1 (1) Assist the Director and Commission in developing goals, criteria, and
2 strategies for maximizing resource-efficient building design and operations and to make policy
3 recommendations regarding requirements for city and private resource-efficient buildings to
4 the Board of Supervisors;

5 (2) Develop and oversee a training program in Resource-Efficient Building
6 Practices for department heads and city architects, engineers, construction managers and
7 building managers employed by the City in order to implement the policies adopted by the
8 Board of Supervisors;

9 (3) Coordinate with other City Departments having expertise with, or with
10 responsibility for, compliance with the requirements of this Chapter, and on achieving
11 resource-efficient building goals including, but not limited to, the Department of Public Works,
12 the Solid Waste Management Program, the PUC, and the Department of Building Inspection.
13 These departments shall also assist the Director in providing advice, assistance, outreach,
14 and education to other City Departments concerning Resource-Efficient Building Practices;

15 (4) Assess the efficacy of the Pilot Program and the Resource-Efficient Building
16 Program on both environmental and economic grounds; and

17 (5) Provide information to the general public to encourage the adoption of
18 resource-efficient building guidelines in the private sector.

19 (b) **Rules and Regulations.** The Commission may promulgate such regulations as
20 may be necessary from time to time to carry out the provisions of this Chapter. The Director
21 is authorized to call upon other City Departments as necessary and appropriate to assist in
22 developing such regulations. A public hearing shall be held by the Commission prior to the
23 adoption or any amendment of the regulations.

1 **SEC. 82.4 RESOURCE EFFICIENCY REQUIREMENTS FOR CITY BUILDINGS.**

2 (a) Within 90 days of the effective date of this Chapter, the Commission shall issue
3 guidelines to all City Departments to assist them in determining which of the following
4 provisions in this Chapter apply to them.

5 **(b) Water Conservation Requirements for Toilets.** (1) This requirement applies to
6 the following City Departments: City Departments undertaking or authorizing others to
7 undertake Construction Projects with a total projected cost of \$90,000 or more at City-owned
8 Facilities; City Departments undertaking or authorizing others to undertake Construction
9 Projects with a total projected cost of \$90,000 or more in Existing City Leaseholds (but only if
10 restrooms are included in the leasehold space and the City Department has a separate
11 metering account with the San Francisco Water Department); City Departments undertaking
12 or authorizing others to undertake Construction Projects with a total projected cost of \$90,000
13 or more in New City Leaseholds (but only if restrooms are included in the leasehold space
14 and the City Department has a separate metering account with the San Francisco Water
15 Department); City Departments executing agreements for New City Leaseholds or occupying
16 New City Leaseholds (but only if restrooms are included in the leasehold space and the City
17 Department has a separate metering account with the San Francisco Water Department); City
18 Departments occupying City-owned Facilities (but only if the City Department has separate
19 metering account with the San Francisco Water Department); and all City Departments
20 purchasing toilets beginning 90 days after the effective date of this Ordinance.

21 (2) All City Departments listed above shall ensure that all toilets are replaced
22 with toilets that use no more than 1.6 gallons of water per flush. Replacement shall occur at
23 the earlier of: (A) the time of major remodeling, defined as when a water drainage system is
24 substantially altered, modified or renovated (as those terms are defined in San Francisco
25

1 Plumbing Code Section 101(4) or when two or more toilets and/or urinals are replaced in a
2 single bathroom; or (B) by June 30, 2005.

3 (3) Each City Department subject to subsection (b)(1) of this Section shall be
4 responsible for the costs of compliance and for ensuring that all applicable contract
5 documents for the replacement of toilets contain the above requirement.

6 (4) To facilitate the installation of these toilets, the PUC shall:

7 (A) Negotiate and secure, within 90 days of the effective date of this
8 Chapter, contracts with one or more vendors that all City Departments may use for the
9 purchase and installation of 1.6-gallon-per-flush valves and tank toilets. The contract will
10 include a list of toilets approved by the International Association of Plumbing and Mechanical
11 Officials. The toilets on this list shall be the only toilets purchased. This list shall be updated
12 annually by the PUC and shall be provided to all heads of City Departments responsible for
13 purchases and/or installations at City-owned Facilities or leaseholds and to the Purchasing
14 Department.

15 (B) Establish a procedure (including a fixed price) by which City
16 Departments may contract with the Department of Public Works' Bureau of Building Repair
17 for the installation of such toilets. This procedure shall be distributed to all City Departments
18 responsible for purchases and/or installations at City-owned Facilities or leaseholds within 90
19 days of the effective date of this Chapter. It shall be updated by the PUC annually and sent to
20 all heads of City Departments responsible for purchases and/or installations at City-owned
21 Facilities or leaseholds and to the Purchasing Department.

22 (5) Between July 1, 2005 and June 23, 2007, the San Francisco Water
23 Department shall inspect all buildings subject to this requirement to ensure that all toilets have
24 been installed as required by this subsection.
25

1 (6) Should the Commission determine that toilets that are more water-efficient
2 than those specified in the foregoing sections exist, the Commission may, in consultation with
3 the Water Department, establish a list of other water-efficient toilets that City Departments
4 may use.

5 (c) **Water Conservation Requirements for Shower Heads.** (1) This requirement
6 applies to the following City Departments: City Departments undertaking or authorizing others
7 to undertake Construction Projects with a total projected cost of \$90,000 or more in City-
8 owned Facilities; City Departments undertaking or authorizing others to undertake
9 Construction Projects with a total projected cost of \$90,000 or more in Existing City
10 Leaseholds (but only if restrooms are included in the leasehold space and the City
11 Department has a separate metering account with the San Francisco Water Department); City
12 Departments undertaking or authorizing others to undertake Construction Projects with a total
13 projected cost of \$90,000 or more in New City Leaseholds (but only if restrooms are included
14 in the leasehold space and the City Department has a separate metering account with the
15 San Francisco Water Department); City Departments executing agreements for New City
16 Leaseholds or occupying New City Leaseholds (but only if restrooms are included in the
17 leasehold space and the City Department has a separate metering account with the San
18 Francisco Water Department); City Departments occupying City-owned Facilities (but only if
19 the City Department has a separate metering account with the San Francisco Water
20 Department); and all City Departments purchasing shower heads beginning 90 days after the
21 effective date of this Ordinance.

22 (2) All City Departments listed above shall ensure that all shower heads are
23 replaced with shower heads using no more than 1.5 gallons per minute by June 30, 2005.
24
25

1 (3) Each City Department subject to subsection (c)(1) shall be responsible for
2 the costs of compliance and for ensuring that all applicable contract documents for the
3 replacement of shower heads contain the above requirement.

4 (4) To facilitate the installation of these shower heads, the PUC shall:

5 (A) Provide a list of the approved shower head brands and models to all
6 heads of City Departments responsible for purchases and/or installations at City-owned
7 Facilities or City Leaseholds and to the Purchasing Department;

8 (B) Negotiate and secure, within 90 days of the effective date of this
9 Chapter, a contract with one or more vendors for the purchase and installation by City
10 Departments of 1.5 gallon per minute shower heads; and

11 (C) Negotiate a set price for the installation of the shower heads with the
12 Department of Public Works;

13 (D) Distribute information on the price for installation, and lists of
14 approved shower heads and contract vendors to all heads of City Departments responsible for
15 purchases and/or installations at City-owned Facilities or City leaseholds and to the
16 Purchasing Department.

17 (5) Should the Commission determine that shower heads that are more water-
18 efficient than those specified in the foregoing sections exist, the Commission may, in
19 consultation with the Water Department, establish a list of other water-efficient shower heads
20 that City Departments may use.

21 (d) **Energy Conservation.** (1) These requirements (or California Code of
22 Regulations Title 24, Part 6 or subsequent State standards, whichever are more stringent)
23 shall apply in all cases except those in which a City Department is not responsible for
24 maintenance of light fixtures or exit signs.

1 Departments executing agreements for New City Leaseholds or occupying New City
2 Leaseholds; and City Departments occupying City-owned Facilities (but only if the City-owned
3 Facility was acquired at least 90 days after the effective date of the Ordinance.)

4 (2) All City Departments identified above shall ensure that adequate,
5 accessible, and convenient recycling areas are provided within the City-owned Facility or
6 leasehold, and that all applicable contract documents contain this requirement. The minimum
7 allowable recycling area shall be not less than the space allocated for the storage of refuse.

8 (3) The requirement set forth in subsection (g)(2) of this Section to provide
9 adequate recycling areas shall apply to Construction Project(s) for which funds have been
10 appropriated on or after the effective date of this Chapter for:

11 (i) A single alteration which is subsequently performed that adds to or
12 modifies 20 percent or more of the existing floor area of the project; or

13 (ii) Multiple alterations which are conducted within a twelve-month period
14 which collectively add to or modify 20 percent or more of the existing floor area of the project.

15 (4) Any cost associated with recycling areas pursuant to this subsection shall be
16 the responsibility of the party or parties who are responsible for the cost of any alterations to
17 accommodate their occupancy.

18 **Sec. 82.5 CONSTRUCTION AND DEMOLITION DEBRIS MANAGEMENT.** This
19 requirement applies to all Construction Projects with a total projected cost of \$90,000 or more
20 at City-owned Facilities and New and Existing City Leaseholds. All City Departments shall
21 ensure that each Construction Project subject to this Chapter shall minimize construction and
22 demolition debris disposal in accordance with the following requirements:

23 (a) **Construction and Demolition Debris Management Plan.** The contract between
24 the City Department and the contractor shall require the contractor responsible for demolition
25 to: (1) conduct a site assessment to estimate the types of materials that will be generated by

1 demolition at the site that are anticipated to be feasible and practical for reuse and recycling
2 and to (2) complete a plan as set forth in subparagraph (b) describing the procedures for
3 disposal, reuse or recycling.

4 **(b) Plan Requirements.** The contract between the City Department and the
5 contractor shall require that: (1) After award of the contract and prior to commencement of
6 the demolition, the City Project Engineer shall meet with the contractor to develop a plan for
7 managing construction and demolition debris to enable the City and the contractor to develop
8 a mutual understanding regarding recycling and reuse.

9 (2) The contractor shall prepare and submit to the City Project Engineer a
10 written construction and demolition debris management plan. The construction and
11 demolition debris management plan shall include, but not be limited to, the following
12 information: (A) contractor and project identification information; (B) procedures to be used for
13 debris management; (C) a listing of the materials to be reused, recycled, or landfilled; (D) an
14 estimate of the quantities to be reused, recycled, or landfilled; and (E) the names and
15 locations of reuse and recycling facilities or sites.

16 (3) The construction and demolition debris management plan is subject to the
17 approval of the City Project Engineer.

18 **(c) Recycling of Construction and Demolition Debris.** The contract between the
19 City Department and the contractor shall require that:

20 (1) The contractor shall develop and implement procedures to reuse and
21 recycle materials to the greatest extent feasible based upon the contract, the construction and
22 demolition debris management plan, the estimated quantities of materials, and the availability
23 of recycling facilities.

24 (2) The contractor shall develop and implement programs for on-site or off-site
25 recycling of source-separated materials, including asphalt, concrete, concrete block, and

1 rocks; dirt and sand; metals (ferrous and non-ferrous); wood; green materials (e.g., tree
2 trimmings) and other materials as appropriate, such as red clay brick, corrugated cardboard,
3 and wall board; mixed debris; and salvageable items. Prior to delivering materials, the
4 contractor shall familiarize itself with the specifications for acceptance of construction and
5 demolition materials at recycling facilities.

6 (3) Approval of the contractor's construction and demolition debris management
7 plan by the City Project Engineer shall not relieve the contractor of the duty to comply with any
8 other applicable laws regulating control or disposal of solid waste or other pollutants.

9 (d) **Summary of Diversion; Disposal.** The contract between the City Department
10 and the contractor shall require that:

11 (1) With each application for progress payment, the contractor shall submit a
12 summary of construction and demolition debris diversion and disposal, quantifying all
13 materials generated at the work site and disposed of in Class III Landfills, as defined in Title
14 27 CCR 20260, or diverted from disposal through recycling. Failure to submit supporting
15 documentation in the form of weight slips or other similar proof shall render the application for
16 progress payment incomplete and delay progress payment.

17 (2) The contractor shall be responsible for transporting and disposing of
18 materials that cannot be delivered to a source-separated or mixed materials recycling facility
19 to a transfer station or disposal facility that can accept the materials in accordance with state
20 law. No solid waste shall be burned, buried or otherwise disposed of on the project site.

21 (e) **Revenue.** Revenues or other savings obtained from recycled or reused materials
22 shall accrue to the City Department or the contractor as negotiated between them and
23 embodied in the contract.

24 **SEC. 82.6 EXEMPTIONS.** Exemptions may be granted by the Director from any
25 requirement imposed by sections 82.4 or 82.5 of this Chapter if, due to specific

1 circumstances, compliance would defeat the intent of this Chapter or create an unreasonable
2 burden on the project or department. Such requests shall be submitted in writing, and shall
3 include documentation of the circumstances and burdens at issue.

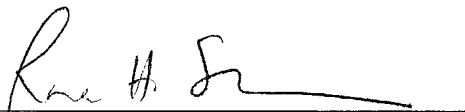
4 **SEC. 82.7 REPORT TO THE BOARD OF SUPERVISORS.** Within three years of the
5 effective date of this Chapter, the Resource Efficient Building Program, in consultation with
6 affected City Departments and with input from interested members of the public, shall submit
7 to the Board of Supervisors a report on the effects of this Chapter, including but not limited to,
8 the following:

- 9 (1) An assessment of whether this Chapter has achieved its stated goals; and
10 (2) Recommended changes, if any, to this Chapter.

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14 APPROVED AS TO FORM:

15 LOUISE H. RENNE, City Attorney

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18 By:


19 RONA H. SANDLER
Deputy City Attorney

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23
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**SUPERVISORS Ammiano, Bierman, Leno, Katz, Newsom and Yee **

BOARD OF SUPERVISORS

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5/11/99



City and County of San Francisco

City Hall
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102-4689

Tails Ordinance

File Number: 990443

Date Passed:

Ordinance amending Administrative Code by adding Chapter 82, Sections 82.1 thru 82.7, establishing resource efficiency requirements for City-owned facilities and City leaseholds.

May 17, 1999 Board of Supervisors — PASSED ON FIRST READING

Ayes: 8 - Ammiano, Becerril, Bierman, Katz, Leno, Newsom, Teng, Yaki

Absent: 3 - Brown, Kaufman, Yee

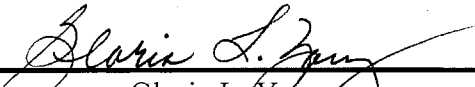
May 24, 1999 Board of Supervisors — FINALLY PASSED

Ayes: 10 - Ammiano, Becerril, Bierman, Brown, Kaufman, Leno, Newsom, Teng, Yaki, Yee

Absent: 1 - Katz

File No. 990443

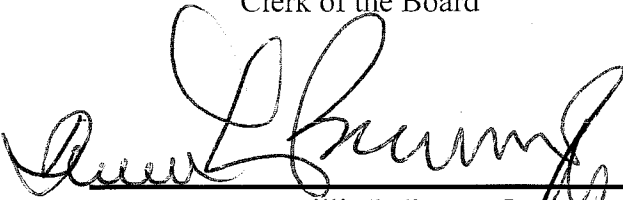
I hereby certify that the foregoing Ordinance
was FINALLY PASSED on May 24, 1999 by
the Board of Supervisors of the City and
County of San Francisco.



Gloria L. Young
Clerk of the Board

JUN 2 1999

Date Approved



Mayor Willie L. Brown Jr.

File No. 990443 continued...

1 (2) City Departments shall be responsible for the cost of compliance and for
2 ensuring that all applicable contract documents for the replacement and installation of light
3 fixtures and exit signs contain the following requirements:

4 (A) Exit Signs. At the time of installation or replacement of broken or
5 non-functional exit signs, all exit signs shall be replaced with light-emitting diode (L.E.D.)-type
6 signs. Edge-lit compact fluorescent signs may be used as replacements for existing edge-lit
7 incandescent exit signs.

8 (B) Fluorescent Fixtures. At the time of installation or replacement of
9 broken or non-functional fluorescent fixtures equipped with T10 or T12 lamps, all fixtures shall
10 be equipped with electronic ballasts and T8 or more efficient lamps unless this replacement
11 will create lighting levels at the work surface that are below the standards established by the
12 Illuminating Engineering Society.

13 (C) Exterior Light Fixtures. At the time of installation or replacement of
14 broken or non-functional exterior light fixtures, a photocell or automatic timer shall be installed
15 to prevent lights from operating during daylight hours. The existing switching capability shall
16 be maintained. Upon written request by a City Department, the Commission on the
17 Environment may grant an exemption from the requirement of this subsection where lighting is
18 necessary during daylight hours.

19 (D) Fluorescent Fixture Ballasts. At the time of installation or
20 replacement of the ballasts in fluorescent fixtures equipped with T10 or T12 lamps, all
21 replacement ballasts shall be electronic and compatible with only T8 or more efficient lamps
22 unless such replacement will create light levels at the work surface that are below the
23 standards established by the Illuminating Engineering Society.

24 (E) Other technologies. Should the Commission determine that light
25 fixtures or exit signs that are more energy-efficient than those specified in the foregoing

1 sections exist, the Commission may, in consultation with the Bureau of Energy Conservation
2 within the PUC, establish a list of other energy-efficient light fixtures and exit signs that City
3 Departments may use.

4 **(e) Fluorescent Lamp Recycling.** Commencing 90 days after the effective date of
5 this Chapter, all fluorescent lamps discarded by City Departments shall be recycled. The
6 Solid Waste Management Program of the Department of Administrative Services shall
7 establish a program for collecting and recycling discarded fluorescent tubes.

8 **(f) Indoor Air Quality.** (1) This requirement applies to the following City
9 Departments: City Departments undertaking or authorizing others to undertake Construction
10 Projects with a total projected cost of \$90,000 or more in City-owned Facilities; City
11 Departments undertaking or authorizing others to undertake Construction Projects with a total
12 projected cost of \$90,000 or more in Existing City Leaseholds; City Departments undertaking
13 or authorizing others to undertake Construction Projects with a total projected cost of \$90,000
14 or more in New City Leaseholds; City Departments occupying an Existing City Leasehold (if
15 the City is responsible for managing the Existing City Leasehold); City Departments executing
16 agreements for New City Leaseholds or occupying New City Leaseholds (if the City is
17 responsible for managing the New City Leasehold); and City Departments occupying City-
18 owned Facilities (if the City Department is responsible for managing the City-owned Facility.)

19 (2) Maintenance. Within 90 days of the effective date of this Chapter, the
20 Department shall provide informational guidelines for the development of indoor air quality
21 maintenance plans to all City Departments identified above. The guidelines shall include, at a
22 minimum, guidance and recommendations on the following:

23 (A) A schedule and procedures for thorough cleaning of finishes,
24 furniture and fixtures in order to remove and reduce the growth of organisms hazardous to
25 human health at the time of delivery and regularly after installation.

1 (B) A schedule and procedures for inspecting and maintaining
2 mechanical systems, including heating, ventilation and air conditioning systems (hereinafter
3 "HVAC" systems).

4 (C) A schedule and procedures for inspecting for mold and/or mildew
5 contamination in porous building materials, fixtures and furnishing, including provisions for the
6 complete removal and replacement of such materials where it is determined by inspection that
7 the materials have become contaminated by mold and/or mildew.

8 (D) A commitment to using cleaners and polishes with minimal effects on
9 indoor air quality.

10 (3) Within 90 days of the development of guidelines pursuant to subsection
11 (f)(2), all City Departments identified in Subsection (f)(1) shall develop and implement indoor
12 air quality maintenance plans.

13 (4) Pollutant Source Control.

14 (A) Reduction of Health Hazards from Microbial Contaminants.
15 Commencing 90 days after the effective date of this Chapter, all City Departments
16 undertaking or authorizing others to undertake Construction Projects with a total projected
17 cost of \$90,000 or more in City-owned Facilities, New City Leaseholds and Existing City
18 Leaseholds shall include in their contracts for Construction Projects provisions requiring:

19 (i) Prevention of Moisture Contamination. Building materials that
20 are intended to be kept dry before, during and following installation (e.g., fabrics, carpeting,
21 drywall, ceiling tiles, and insulation) shall be protected from moisture prior to, during, and after
22 installation.

23 (ii) Removal of Building Materials Contaminated by Moisture. If, in
24 the judgment of the City Project Engineer, any building material that is intended to be kept dry
25 before, during and after installation has become wet, such material shall be removed

1 immediately from the job site, disposed of in accordance with this Chapter, and replaced. It
2 shall be the responsibility of the relevant contractor or subcontractor to monitor the storage of
3 such materials to ensure that they remain dry, and to remove and dispose of such materials if
4 they become wet.

5 (iii) Determination by Independent Industrial Hygienist. On
6 Construction Projects with a total construction cost exceeding \$1,000,000, if any building
7 material that is intended to be kept dry becomes, in the judgment of the subcontractor or the
8 City Project Engineer, contaminated by moisture, the City's project manager shall obtain an
9 assessment by an independent industrial hygienist to assess the extent of contamination and
10 supervise the containment and removal of moisture-contaminated materials. Where the
11 hygienist determines that moisture contamination has occurred, the contractor responsible for
12 causing or allowing the contamination to occur shall be responsible for the costs of the
13 hygienist's services and the costs for removal and replacement of the contaminated materials.
14 Should no moisture contamination be found, the City shall be responsible for the costs of the
15 hygienist's services.

16 (B) Elimination or Encapsulation of Fibrous Insulation Materials. The use
17 of exposed fibrous duct insulation material in Construction Projects shall be prohibited. If the
18 design of a Construction Project requires the use of fibrous insulation material, such material
19 shall be encapsulated to minimize mold and/or mildew growth and emissions of volatile
20 organic compounds into the habitable space.

21 (g) **Storage of Recyclables.** (1) This requirement applies to the following City
22 Departments: City Departments undertaking or authorizing others to undertake Construction
23 Projects at City-owned Facilities; City Departments undertaking or authorizing others to
24 undertake Construction Projects in Existing City Leaseholds; City Departments undertaking or
25 authorizing others to undertake Construction Projects in New City Leaseholds; City

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