



Director's Rule 2016-01

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Office of Sustainability & Environment Director's Rule

Building Tune-Ups Requirement

1. PURPOSE AND BACKGROUND

Pursuant to Seattle Municipal Code (SMC) 22.930, Building Tune-ups, all buildings in the City of Seattle that meet specified size thresholds (gross square feet) and building uses must fulfill certain requirements to ensure optimized energy and water performance. The purpose of this Rule is to clarify the requirements of SMC 22.930 and the processes through which Building Owners and other affected parties may satisfactorily comply with the tune-ups requirement and report the results to the City of Seattle.

In 2013, the City of Seattle adopted a Climate Action Plan (CAP) for achieving the City's vision for a carbon-neutral community by 2050. Buildings are responsible for 32% of Seattle's core emissions.¹ The City is aiming for an 82% reduction in building-related emissions by 2050, and a 45% reduction in commercial building energy use by 2050 to help achieve that goal.² Improving the energy and GHG efficiency of Seattle's existing building stock will most directly help reduce carbon pollution, but will also more broadly:

- promote high performing buildings;
- maintain affordability for Building Owners and Tenants through reduced annual building utility expenses; and
- support local green jobs.

Toward those ends, SMC 22.930 requires owners of nonresidential buildings that are 50,000 gross square feet or greater, excluding parking and residential spaces, to tune-up building energy and water systems every five years. A tune-up includes (a) an inspection of building systems to identify operational or maintenance issues; (b) Corrective Actions to operational and maintenance issues identified in the inspection; and (c) a report to the Seattle Office of Sustainability & Environment (OSE) summarizing issues identified and actions taken. The building elements to be assessed in a tune-up, and the associated Corrective Actions were designed to incorporate actions that taken together would, on average, reduce energy use by 10-15% and pay back in utility bill savings in 2-3 years. While the Building Tune-Ups Assessment and Corrective Actions were designed around that model, the Building Tune-Ups requirement itself does not require the calculation of energy savings or payback periods. Payback periods for any specific action or for combined actions for an individual building are not a determinant of whether a Corrective Action is required.

2. DEFINITIONS

¹ 2014 Seattle Community Greenhouse Gas Emissions Inventory:

www.seattle.gov/Documents/Departments/OSE/Climate%20Docs/2014GHG%20inventorySept2016.pdf

² 2013 Seattle Climate Action Plan: www.seattle.gov/Documents/Departments/OSE/2013_CAP_20130612.pdf

- A. **Alternative Compliance Pathways** – Alternative compliance pathways are optional approaches a Building Owner may take to be eligible for an exemption from the current compliance period. Alternative compliance pathways are identified in Section 9 of this Rule, and include measures that demonstrate high building energy performance, low energy consumption, or tune-up equivalent processes.
- B. **Appropriate (as it applies to Corrective Actions)** – In Section 11 of this Rule, an “Appropriate” Corrective Action in a building is an operational and/or maintenance action intended to improve energy or water efficiency or to correct an operational deficiency in a manner that supports the needs of occupants and uses of a building. An Appropriate **operational adjustment** is one that can be made to existing equipment without a need to purchase new equipment. An Appropriate **maintenance action** is one that is commonly considered normal and standard maintenance of existing systems.
- C. **ASHRAE**: American Society of Heating, Refrigerating, and Air-Conditioning Engineers, a professional organization dedicated to the mission of advancing heating, ventilation, air conditioning and refrigeration through research, standards writing, publishing and continuing education.
- D. **Assessor's Gross Square Feet (GSF)** – a building's total square footage as provided in King County Assessor records. For determining if a building or building space is subject to this requirement under SMC 22.930, a building's or space's Gross Square Feet is defined as the total gross square feet in King County Assessor's records of all nonresidential spaces, excluding parking, in the building. This calculation must include the gross square feet of all “small spaces with Tenant-owned equipment” that may be exempted as defined in Section 5 of this Rule.
- E. **Building Owner** – an individual or entity possessing a fee interest in a building. Where a condominium is subject to this Rule, “Building Owner” means the owners' association. In a condominium where the powers of an owners' association are exercised by or delegated to a master association, as defined in RCW 64.34.276, “Building Owner” means the master association. A Building Owner may designate an agent to act on their behalf, such as a building manager or the net lessee. “Building Owner” refers to the ownership of the structure, even if the parcel of land is leased by a different ownership entity to the Building Owner (i.e. “land lease”).
- F. **Certificate of Occupancy (C of O)** – a certificate issued by the Seattle Department of Construction and Inspections (SDCI) after final inspection of permitted construction work on a building, allowing the building to be occupied.
- G. **Certified ENERGY STAR Score** – the score certified and provided by the United States Environmental Protection Agency ENERGY STAR program for commercial buildings indicating the relative energy performance of a building as compared to similar buildings nationwide, as verified and stamped by a licensed professional engineer (PE) or registered architect (RA).
- H. **Commercial Condominiums** – a building or portion of a building comprised of individually owned commercial units that are part of a larger multi-unit building with various owners, and managed by an owners' association.
- I. **Corrective Action(s)** – Measure(s) identified by Tune-Up Specialists in a Building Tune-Up Assessment for a Building Owner to implement in order to optimize building or equipment

operations. Corrective Actions are required to be completed and documented in a report to the OSE Director to comply with SMC 22.930.

- J. **Energy Benchmarking** – the assessment of a building's energy use and efficiency as required in Seattle Municipal Code (SMC) Chapter 22.920.
- K. **Energy Use Intensity (EUI)** – a measurement that describes a building's energy use relative to its size. A building's EUI is calculated by dividing the total energy consumed in one year by the Gross Floor Area of the building. EUI is reported as a value of thousand British thermal units per square foot (kBtu/sf).
- L. **Gross Floor Area (GFA)** – a term used in ENERGY STAR and the Seattle Energy Benchmarking program. It represents the building floor area as the total number of square feet measured between the exterior surfaces of the enclosing fixed walls, including all supporting functions such as offices, lobbies, restrooms, equipment storage areas, mechanical rooms, break rooms, elevator shafts, etc. Atriums should only include the base floor area that they occupy. The total Gross Floor Area should not include outside bays or docks.
- M. **Initial Occupancy Date** – the date that a Certificate of Occupancy is issued for a building. If no Certificate of Occupancy was issued, the Initial Occupancy Date will be the date any utility service was first billed for the building.
- N. **LEED** – Leadership in Energy and Environmental Design, an internationally recognized green building rating and certification system that provides third-party verification that a building or community was designed and built, or an existing building improved, using strategies intended to improve performance in the areas of energy savings, water efficiency, greenhouse gas emissions reduction, indoor environmental quality, and stewardship of resources. LEED certification is by Green Business Certification Inc. (GBCI).
- O. **Living Building Challenge (LBC)** – A building certification standard including rigorous standards for energy and water consumption, among other requirements. To be certified, buildings must meet a series of ambitious performance requirements over a minimum of 12 months of continuous occupancy. LBC certification is conducted through the International Living Future Institute (ILFI).
- P. **Operations / Operational Actions** – For purposes of this Rule, building operations and operational actions describe the use of equipment within a building. Operational improvements refer to changing or optimizing how the equipment is used, but do not include changing the equipment itself.
- Q. **OSE Director** – Director of the Office of Sustainability and Environment or designee.
- R. **ENERGY STAR® Portfolio Manager®** - the tool developed and maintained by the United States Environmental Protection Agency (EPA) to track and assess the relative energy performance of similar buildings nationwide, and used by Building Owners to comply with the Seattle Energy Benchmarking and Reporting program requirements.
- S. **Seattle OSE Building Identification Number (Building ID)** - A unique building identification number assigned by OSE to each covered building to facilitate Tune-Up Report submission and compliance tracking.
- T. **Tenant** – a person or business occupying or holding possession of any part of a building or premises pursuant to a rental agreement or condominium agreement.

- U. **Transient** – For purposes of this Rule, transient refers to a building, facility or portion thereof, excluding inpatient medical care facilities and long-term care facilities, that contain one or more dwelling units or sleeping units that are rented to guests more than three times in a calendar year for periods of less than 1 calendar month, or which are advertised or held out to the public as a place regularly rented to guests. Examples include, but are not limited to, resorts, hotels, motels, and homeless shelters.
- V. **Tune-Up Specialist** – a person qualified to conduct a tune-up assessment, identify required tune-up actions, perform tune-up actions and/or verify that tune-up actions were completed. A Tune-Up Specialist must meet the qualifications specified in Section 12 of this Rule.
- W. **Weather-Normalized Energy Use** – the energy a building would use under typical annual weather conditions, as calculated by US EPA's ENERGY STAR Portfolio Manager for Energy Benchmarking.

3. BUILDING TYPES SUBJECT TO REQUIREMENT

Per SMC 22.930, the Building Tune-Ups requirement applies to all nonresidential buildings and nonresidential spaces that are 50,000 Gross Square Feet or greater, excluding parking, as recorded in King County Assessor records, are located entirely in the City of Seattle, and that are subject to Energy Benchmarking requirements per SMC 22.920. To determine if a building is subject to this requirement under SMC 22.930, a building's or space's gross square feet (GSF) should be calculated according to the Gross Square Feet definition in Section 2 of this Rule.

This Rule further clarifies that the Building Tune-Ups requirement applies to the following buildings:

- A. **Nonresidential buildings:** Buildings with a gross square footage of 50,000 square feet or greater, excluding parking, and falling under the authority of the Seattle Building Code, other than apartment houses or other buildings listed as not subject to this requirement under Section 4 of this Rule, are considered to be nonresidential. Some examples of the types of buildings that fall within this category include, but are not limited to, buildings used for the following:
 - a. The gathering of people for purposes such as civic, social or religious functions (e.g. theaters, restaurants, libraries, places of worship, stadiums)
 - b. Office, professional, or service-type transactions (e.g. banks, laboratories, professional service offices)
 - c. Educational purposes (e.g. public or private schools, day care facilities)
 - d. Uses in which people are cared for or live in a supervised environment (e.g. convalescent facilities, hospitals, nursing homes, prisons, detention centers)
 - e. The display and sale of merchandise (e.g. department stores, drug stores, markets, retail or wholesale stores)
 - f. Uses containing sleeping units where the occupants are primarily transient in nature (e.g. hotels, motels)
 - g. The storage of materials (e.g. warehouses)
- B. **Mixed use buildings with 50,000 square feet or greater of nonresidential space:** Any building that contains some spaces categorized as nonresidential and other spaces categorized as

residential is considered to be mixed use. The nonresidential portions of a mixed use building are subject to this requirement if the applicable nonresidential (as defined in Section 3.A) portions of the building, excluding parking, total 50,000 gross square feet or greater.

- C. **Campus buildings:** Nonresidential or mixed use buildings as identified in Sections 3.A and 3.B above are subject to the Tune-Ups requirement. This includes buildings that benchmark individually and those that benchmark to the City of Seattle as part of a campus.
- D. **Commercial condominiums:** Commercial condominiums that meet the criteria under this section are subject to this ordinance.

4. BUILDINGS NOT SUBJECT TO REQUIREMENT

Per SMC 22.930, and for the purposes of this Rule, the Building Tune-Ups requirement does not apply to the following buildings.

- A. **Single family residential buildings:** this includes buildings which are either subject to the Seattle Residential Code, or Subject to the Seattle Building Code with occupancies classified as Group R-3. Per the 2012 Seattle Building Code Group R-3 includes:
 - i. Buildings that do not contain more than two dwelling units
 - ii. Boarding houses (non-transient)
- B. **Multifamily residential buildings:** buildings whose primary occupancy is classified under the Seattle Building Code as Residential Group R-2, and which contain less than 50,000 square feet of nonresidential space (as described in this Section). Per the 2012 Seattle Building Code, Group R-2 includes all residential occupancies containing sleeping units where occupants are primarily permanent in nature, including but not limited to:
 - i. Apartment houses
 - ii. Assisted living facilities licensed by the Department of Social and Health Services under Chapter 388-78A WAC
 - iii. Non-transient boarding houses, congregate living facilities, convents, dormitories, fraternities and sororities, live/work units, and monasteries
 - iv. Residential treatment facilities as licensed by Washington State Department of Health under Chapter 246-337 WAC
 - v. Vacation timeshare properties
- C. **Mixed use buildings with less than 50,000 square feet of nonresidential space:** Any building that contains some spaces categorized as nonresidential and other spaces categorized as residential or multifamily is considered to be mixed use. Residential or multifamily (as defined in this Section) portions of the building are not subject to this requirement. The applicability of this requirement to nonresidential building spaces is determined as defined in Section 3.B of this Rule.
- D. **Manufacturing or industrial buildings:** Buildings used primarily for manufacturing or industrial purposes, as demonstrated by submitting one of the following:
 - i. A valid Certificate of Occupancy or construction permit documenting that at least 50% of the building gross square footage is classified under the Seattle Building Code as

Factory Industrial Group F. This includes buildings used for assembling, disassembling, fabricating, finishing, manufacturing, packaging, repair, or processing operations.

- ii. Office of Sustainability & Environment's Tune-Ups Exemption Request form, in which the Building Owner has verified that:
 - a. Neither they nor OSE staff have been able to locate the Certificate of Occupancy for their building; and
 - b. Their building meets the definition of a Factory Industrial Group F building as classified in the current Seattle Building Code.

Buildings previously exempted from the annual benchmarking requirement as manufacturing or industrial facilities do not need to resubmit documentation for the Building Tune-Ups requirement.

5. CLARIFICATIONS AND SPECIAL-CASE SPACES

- A. **Small spaces with Tenant-owned equipment:** Nonresidential spaces 5,000 square feet or smaller that are occupied by a Tenant and where the Tenant owns, operates, and maintains the mechanical equipment (e.g. heating, ventilation, air conditioning), are not subject to a Building Tune-Up under this requirement.
- B. **Parking and unconditioned spaces:** Parking and other unconditioned (not mechanically heated or cooled) spaces within a building that are subject to this requirement shall be included in a Building Tune-Up per this Rule.
- C. **Irrigated landscaping:** Exterior landscaping areas of a building that is subject to this requirement shall be included in a Building Tune-Up per this Rule if the total square footage of irrigated area is 500 square feet or more, and if the meter for irrigation water is associated with the building subject to compliance.
- D. **Communication equipment:** Leased spaces and equipment solely for the purpose of communication (e.g., cell phone towers or rooftop antennae leases) are not subject to this requirement.
- E. **Special use equipment:** Special use equipment such as equipment for cooking, medical equipment, and industrial processing is not subject to this requirement. HVAC systems serving these spaces are subject to the requirement.
- F. **Data centers and server rooms:** Servers and other computing equipment are not subject to this requirement. HVAC systems serving the space are subject to the requirement.

6. PARTIES RESPONSIBLE FOR COMPLIANCE

- A. **Building Owner Responsibilities:** The Building Owner as of October 1 of the required compliance year is responsible for complying with SMC 22.930 and communicating relevant compliance activities to Tenants. The Building Owner may delegate compliance responsibility to an agent (for example, a property manager), Tenant, vendor, or an employee (for example, a building engineer), but in the event of failure to comply, the Building Owner will ultimately be assessed any fines resulting from non-compliance. If a Tenant has been delegated the

responsibility to comply with this requirement and does not do so, the Building Owner shall be allowed access to tenant spaces to enable the Building Owner to comply.

In the case of a change of ownership on or near the compliance date, the following applies unless the seller and buyer agree to tune-up compliance terms in the sale agreement:

- i. If the change of ownership occurred prior to or on the exact date of compliance and the seller did not already comply, the new Building Owner (buyer) is responsible for complying. If the change of ownership occurred no more than one year prior to the compliance date, the new Building Owner (buyer) may request a one-year extension per Section 8.A of this Rule to comply.
 - ii. If the seller owned the building on October 1 of the compliance year, but failed to comply by the deadline, they may be assessed fines for non-compliance. The new Building Owner (buyer) will not be expected to comply with the current compliance cycle, but will be expected to comply in the next tune-up cycle occurring five years later.
- B. Building Tenant Responsibilities:** Tenants of nonresidential building spaces subject to this requirement are required to allow Building Owners and Tune-Up Specialists reasonable access to Tenant spaces, building systems, and utility information for the purpose of enabling compliance with this requirement, including a Tune-Up Assessment and implementation of Corrective Actions.

7. COMPLIANCE SCHEDULE

Building Owners must comply with the Building Tune-Ups requirement once every five years. Compliance deadlines are by building, or space size, with deadlines for the first two cycles of compliance as follows:

Building or Nonresidential Space Size:	Initial Compliance Required by:	Second Compliance Required by:
200,000 gross square feet or greater excluding parking	October 1, 2018	October 1, 2023
100,000 – 199,999 gross square feet excluding parking	October 1, 2019	October 1, 2024
70,000 – 99,999 gross square feet excluding parking	October 1, 2020	October 1, 2025
50,000 – 69,999 gross square feet excluding parking	October 1, 2021	October 1, 2026

8. COMPLIANCE EXTENSIONS

Building Owners may be granted a one-year extension from a tune-up compliance cycle for an individual building by providing documentation of any one of the conditions identified below. The grant of an extension does not change compliance deadlines for subsequent cycles of tune-ups.

Unless a different timeline is specified below, requests for extensions must be submitted to the OSE Director no sooner than two years in advance of, and no later than 180 days prior to, the building's tune-up compliance date, via an OSE-provided Tune-Up Extension Request form. For example, a building due to comply on October 1, 2020 may submit a Tune-Up Extension Request to the OSE Director no sooner than October 1, 2018, and no later than April 1, 2020. For buildings required to comply by October 1, 2018, Tune-Up Extension Requests may be submitted to the OSE Director no sooner than July 1, 2017. The Request must include the building address and Seattle OSE Building ID number, owner name and contact information, criteria under which the building is applying for an extension, and appropriate documentation to meet that criteria as specified below. The OSE Director will notify the applicant of a decision to approve or deny the request within 60 days of receipt of a complete Request form.

Extension Conditions and Documentation Requirements

- A. Change of Ownership: Owners of buildings having a date of purchase within one year prior to or on the exact date of the compliance deadline (October 1st of the required compliance year) may apply for a one-year deadline extension. Evidence of the transaction and new ownership information must be submitted with the Tune-Up Extension Request. If the change of ownership occurs within 180 days of the compliance deadline, Building Owners may submit extension requests up to the tune-up compliance date.
- B. Buildings with less than a 50% occupancy rate in nonresidential spaces during a consecutive 6-month period within the 12-months preceding the compliance date. The Building Owner must submit clear evidence of a minimum 50% vacancy with the Tune-Up Extension Request. If the building continues to have less than a 50% occupancy rate at the end of the extension period, an additional one-year extension may be requested.
- C. Buildings in which permitted mechanical improvements are underway, which must be complete before a tune-up can reasonably occur. The Building Owner must provide permits and work schedules with the Tune-Up Extension Request.
- D. If pursuing an exemption through Section 9.B.iv, which requires demonstrating 15% building energy savings, an owner may request an extension to allow time to demonstrate 12 months of post-implementation reduction in the building's EUI. The Building Owner must submit evidence that the activity projected to reduce the building EUI has been completed within the last year. An extension for this purpose may only be granted once. If at the end of the extension period, the anticipated 15% energy savings has not been demonstrated per the standards of Section 9.B.iv, the exemption request will be denied and the Building Owner will be required to conduct a Building Tune-Up, per the requirements of this Rule, within one year of the date of exemption denial.

9. EXEMPTIONS FOR (1) ALTERNATIVE COMPLIANCE PATHWAYS OR (2) BARRIERS TO COMPLIANCE

Building Owners may be granted exemptions from a tune-up compliance cycle for an individual building by either (1) submitting a Tune-Up Exemption Request and accompanying documentation that one of the following Alternative Compliance Pathways identified in this section has been achieved, or (2)

submitting a Tune-Up Exemption Request and documentation demonstrating that one of the Barriers to Compliance identified in this section applies. Exemptions are subject to approval by the OSE Director and the exemption is only granted to the current compliance cycle. Requests for exemptions must be submitted to the OSE Director no sooner than 2 years in advance of, and no later than 180 days prior to, the building's tune-up compliance date per SMC 22.930.050. For example, a building due to comply on October 1, 2020 may submit a Tune-Up Exemption Request to the OSE Director no sooner than October 1, 2018, and no later than April 1, 2020. For buildings required to comply by October 1, 2018, Tune-Up Extension Request forms may be submitted to the OSE Director no sooner than July 1, 2017. Requests received after the deadline risk non-consideration. The OSE Director will notify the applicant of a decision to approve or deny the request within 60 days of receiving a complete Request form.

Eligibility Timeframes: For the initial cycle of tune-ups compliance identified in Section 7 of this Rule (with compliance dates ranging from October 1, 2018 to October 1, 2021 depending on building size) the Alternative Compliance Pathways identified in this section must be achieved on or after the date of this Director's Rule's final adoption, unless a different time frame is specified below. For subsequent compliance cycles (every five years after the initial compliance dates), the Alternative Compliance Pathways identified in this section must be achieved, or re-verified by the certifying organization in cases where certifications apply, no more than three years prior to the compliance date unless a different time frame is specified below.

Exemptions for Alternate Compliance Pathways

A. Exemplary Energy Performance or Low Energy Consumption

- i. Certified ENERGY STAR Score of 90 or above in buildings equal to or larger than 100,000 square feet of Gross Floor Area (GFA) as defined in Section 2, or a certified ENERGY STAR Score of 85 or above in buildings less than 100,000 GFA as defined in Section 2, received in one of the two years prior to the year of compliance. For example, a building required to meet the Tune-Ups requirement for October 1, 2018 can apply for this exemption if the building received a 2016 or 2017 ENERGY STAR certification. A Building Owner must submit a copy of the ENERGY STAR Certificate of Achievement and a Statement of Energy Performance stamped by a Professional Engineer or Registered Architect with their Tune-Up Exemption Request submitted to the OSE Director. The ENERGY STAR Portfolio Manager property ID of the building submitting this Request must match the ENERGY STAR Portfolio Manager property ID that is being reported to the City of Seattle as part of the Energy Benchmarking ordinance.
- ii. LEED Gold or Platinum certification under LEED-Operation and Maintenance (O+M) with at least 17 Energy and Atmosphere credits for LEED v4 or current, or with 15 Energy and Atmosphere credits under v2009. Building Owner must submit a copy of the LEED scorecard, certificate, and certification date with the Tune-Up Exemption Request.
- iii. International Living Future Institute (ILFI) Living Building Challenge Certification or Petal Certification with the Net Positive Energy Imperative met. A Building Owner must submit a copy of the Living Building Challenge or Petal certificate with the Tune-Up Exemption Request.

- iv. IFLI Net Zero Energy Building Certification. A Building Owner must submit a copy of the Net Zero Energy certificate with the Tune-Up Exemption Request.
- v. Buildings with a site EUI equal to or less than 20 kBtu/sf/year for at least two of the three calendar years (ending in December) preceding the tune-up compliance date. Accuracy of the ENERGY STAR Portfolio Manager account must be verified by an individual meeting the qualifications of a Tune-Up Specialist as defined in Section 12, and the Building Owner must submit the ENERGY STAR Statement of Energy Performance for the relevant calendar years and a signed Tune-Up Exemption Request form from the Tune-Up Specialist.

B. Tune-up Equivalent Processes

- i. Active monitoring and continuous commissioning of HVAC systems, lighting, and water heating. Active monitoring and continuous commissioning must be documented in data reports generated by a building automation system or by staff no less frequently than once per quarter over the two-year period prior to the exemption submittal date. For information that is not available through a building automation system, such as lighting, documentation must demonstrate an alternative form of quarterly review through a utility billing analysis or analysis of information captured by a data logger. Data reports must indicate continuous monitoring and analysis of operational data, fault detection and diagnostics with actionable and measurable instructions for corrective action, and evidence that Corrective Actions consistently occur when faults are detected.
- ii. Successful completion of a retro-commissioning program. Documentation accompanying the Tune-Up Exemption Request may include one of the following:
 - a. Documentation of completion of Seattle City Light's Retro-Commissioning incentive program, including SCL's Retro-commissioning Project Overview form and Retro-commissioning Scoping & Services Completion Verification form, signed by an SCL Energy Management Analyst. If natural gas is used for space heating, evidence of completing Puget Sound Energy's Comprehensive Building Tune-Up incentive program is also expected.
 - b. Documentation of completion of a retro-commissioning process no less stringent than the requirements outlined in the utility programs referenced in Section 9.B.ii.a, as certified by an individual meeting the qualifications of a Tune-Up Specialist in Section 12 of this Rule. Submit final retro-commissioning report and Tune-Up Specialist certification.
- iii. Completion of an energy use audit no less stringent than ASHRAE Level II, conducted by an individual meeting the qualifications of a Tune-Up Specialist as defined in Section 12, and correction of all deficiencies and efficiency measures noted that were projected to have a simple payback of three years or less. Submit a copy of the audit that is no less stringent than an ASHRAE Level II audit and a signed certification from the auditor on the Tune-Up Exemption Request that all energy efficiency measures, including both capital and operational measures, with a simple payback of three years or less were implemented.
- iv. An annualized 15% reduction in weather-normalized site Energy Use Intensity (EUI) relative to the building's prior two-year average site EUI. Accuracy of the ENERGY STAR

Portfolio Manager and Energy Benchmarking account information for all three years must be verified by an individual meeting the qualifications of a Tune-Up Specialist, as defined in Section 12. The Building Owner must submit Energy Performance Reports generated from ENERGY STAR Portfolio Manager showing the three relevant years of and calculations by the Tune-Up Specialist documenting the two-year average weather-normalized site EUI and the 15% reduction relative to that average with their Tune-Up Exemption Request submitted to the OSE Director. The Building Owner must also provide an explanation for the reduction in EUI, and self-certify that it is not due to changes in Tenants, occupancy, or operating hours. Buildings are only eligible for this exemption if their weather-normalized EUI meets or is less than the Seattle weather-normalized median EUI for the relevant building type for one of the two years preceding the compliance date. Information on a building EUI's percentile in Seattle can be found as published annually through the City's Open Data website at data.seattle.gov.

- v. A completed new construction or a Substantial Alteration project, as defined by the Seattle Energy Code (SEC) Section C503.8, that was completed no more than three years preceding the compliance deadline. Provide documentation of the building's final Certificate of Occupancy with the Tune-Up Exemption Request.
- vi. Buildings that have completed Seattle City Light whole-building Energy Analysis Assistance (EAA) for Existing Buildings program, including both an SCL-approved Energy Analysis Report, and receipt of incentive for implementing all measures with a 2 ½ year payback or less. Building Owners must submit documentation of incentives for both the Energy Analysis Report and energy conservation measures.
- vii. Participation in the Building Tune-Up Accelerator Program and successful completion of one of the building energy efficiency improvement options identified under that program. The Accelerator Program is a City of Seattle run program offered through a grant from the US Department of Energy. It will be available for small to midsize nonresidential buildings (less than 100,000 SF), starting in 2017 and ending in 2019.

Exemptions for Barriers to Compliance

C. Barriers to Compliance

- i. Buildings scheduled to be demolished within three years of the tune-up compliance date. Evidence must be provided in the form of a demolition or deconstruction permit issued no more than two years prior to the tune-up compliance date, or an active permit application submitted to the Seattle Department of Construction and Inspections (SDCI).
- ii. Buildings undergoing, or scheduled for, a major renovation including upgrades to HVAC and lighting systems within one year of the tune-up compliance date. Evidence shall be provided in the form of a substantial alteration permit issued no more than two years prior to the tune-up compliance date, or an active permit application submitted to SDCI.
- iii. Buildings in severe financial distress, as evidenced by documentation of any of the following:

- a. Building is the subject of a tax lien sale or public auction due to property tax arrearages,
- b. Building is controlled by court appointed receiver, or
- c. Building has been acquired by a deed in lieu of foreclosure.

10. TUNE-UP PROCESS

Compliance with the Building Tune-Ups requirement includes the following steps:

- A. **Identify a Tune-Up Specialist:** A Building Owner must identify a qualified Tune-Up Specialist as defined in Section 12 of this Rule to conduct or oversee a Building Tune-Up Assessment (described below).
- B. **Building Tune-Up Assessment:** The Tune-Up Specialist must conduct a building assessment to identify building conditions and Corrective Actions required to tune-up the building per the Tune-Up Assessment Elements in Section 11 of this Rule. The Tune-Up Specialist will note findings and identify required Corrective Actions in their own report submitted to the Building Owner.
- C. **Tune-Up Corrective Actions:** A Building Owner must review the report and implement all required Corrective Actions, or an equivalent tune-up action if approved by the Tune-Up Specialist. Implementation of Corrective Actions may be conducted by a Tune-Up Specialist during or after the Building Tune-Up Assessment, or by other professionals with relevant expertise.
- D. **Verification of Completed Corrective Actions:** For Corrective Actions made after (not during) the Building Tune-Up Assessment, the Tune-Up Specialist is required to verify that the required Corrective Actions identified in the Building Tune-Up Assessment were implemented and that all corrected equipment and systems are functioning as intended. The Tune-Up Specialist must verify the Corrective Actions by means relevant to the measures.
- E. **Submit Seattle Tune-Up Report to City:** The Tune-Up Specialist must complete the Seattle Tune-Up Report and share it with the Building Owner. Both the Building Owner or Owner's agent and the Tune-Up Specialist must acknowledge the report (accept the terms and conditions) before the Tune-Up Report is submitted to the OSE Director. The Building Owner may submit the Report or authorize the Tune-Up Specialist to submit on the Owner's behalf. The Tune-Up Report must be submitted to the OSE Director by the tune-up compliance date. Forms should be submitted to OSE electronically online, and instructions will be available on OSE's website.

11. TUNE-UP ASSESSMENT & CORRECTIVE ACTIONS

This section specifies the actions required by Section 10.B – Building Tune-Up Assessment and Section 10.C – Tune-Up Corrective Actions. All Building Tune-Up assessments and verifications must be conducted by, or under direct supervision of, a Tune-Up Specialist as defined in Section 12 of this Rule. The Tune-Up Assessment outlines a Tune-Up Specialist's review of energy and water use data and conditions of building systems, indicates what Corrective Actions may be needed, and whether a corrective action is required or voluntary. Tables 1 and 2 in this section distinguish between required and voluntary Corrective Actions.

Required Corrective Actions identified in the Building Tune-Up Assessment should be based on Tune-Up Specialist's opinion as to whether the operational elements listed in Section 10 of this Rule are functioning in a way that is efficient and Appropriate for the uses and occupancy of the building. If the Tune-Up Specialist finds that an element is not functioning in an efficient manner that supports the building use and occupant needs, he or she shall recommend a Corrective Action, which may include an operational adjustment that can be made without new equipment, or a maintenance action that is commonly considered standard or normal maintenance of existing systems.

Assessments that include multiple pieces of repetitive, identical equipment (e.g. fan coils, plumbing fixtures, lighting sensors on the same schedules) may be limited to the assessment of a representative sample. The sample shall cover at least 12% of each identical piece of equipment, but no fewer than 10 of each in buildings 50,000 – 99,999 SF and no fewer than 20 in buildings 100,000 SF or larger.

A Building Tune-Up, including both the Tune-Up Assessment and Corrective Actions, shall include the actions identified below:

A. Building Information and Utility Data

- i. Identify and document building characteristics including the following:
 - a. Space use types (e.g. office, retail, or data center), and gross square footage.
 - b. Occupancy rate for the building.
 - c. Primary HVAC system type, age and general condition for each space use.
 - d. Primary lighting system type for each space use.
 - e. If applicable, other systems or equipment that account for notable energy use (e.g. heated swimming pool).
 - f. Presence of any electric vehicle charging infrastructure, and number of parking spaces served by vehicle charging equipment.
- ii. Review ENERGY STAR Portfolio Manager account information. Verify that all building meters are included in the account and that gross floor area is accurately recorded for the building and for each space use. Plot and evaluate monthly energy usage to identify anomalies and to identify seasonal patterns that indicate heating and cooling loads.
- iii. Review and evaluate water billing data for either the previous two calendar years or the most recent 24-month period, at a minimum, to identify indications of potential water leaks. Plot monthly water usage to determine if water use over time has varied significantly without explanation.

B. Operating Protocols, Calibration, Sequencing:

Table 1: Operating Protocols, Calibration, and Sequencing Elements of a Building Tune-Up

	Assessment Elements	Follow-Up Actions per Assessment Findings	
		Corrective Actions – Operational Adjustments (Required)	Recommendations (Voluntary)
1. Heating, Ventilation, and Air Conditioning			
a	Review HVAC equipment schedules (Including daily, weekly, seasonal,	Set schedules to optimize operations for actual	

	day/night, occupied/unoccupied hours).	building occupancy patterns.	
b	Review HVAC set points (including space temperatures, supply air temperatures, CO2, boiler temperatures, chilled water temperatures, economizer changeover temperatures, and building pressure).	Set or adjust to optimize function and energy efficiency of operations as Appropriate to support the building use and occupant needs.	
c	Review reset schedules (including supply air temperature, supply air pressure, boiler and chiller water temp, lockouts with outside air temp, loop differential pressure).	Establish or adjust as Appropriate.	
d	Review optimal stop/start capabilities.	Implement optimal start/stop capabilities as Appropriate to support the building use and occupant needs.	
e	Verify that HVAC sensors are functioning, calibrated, and in appropriate locations. Identify where sensors should be repaired, adjusted, calibrated, and/or moved.	Adjust or recommend repairs as Appropriate.	
f	Verify HVAC controls are functioning as intended.	Adjust control sequences as Appropriate for current facility requirements.	
g	Review HVAC controls for unintended or inappropriate instances of simultaneous heating and cooling.	Adjust HVAC controls to reduce or eliminate any unintended or inappropriate simultaneous heating and cooling.	
h	Note any indications of significant air-balancing issues (e.g. wind-tunnel effect). Note any entry doors that are standing open or difficult to open or close due to air pressure imbalances.		Recommend rebalancing of HVAC air and water systems where significant efficiency or comfort improvements can be achieved.
i	Identify any indications of excessive ventilation rates that may be greater than ASHRAE 62.1 standards and are not appropriate for the current facility requirements (e.g. no outside air supply or 100% outside air supply)		Recommend an analysis of ventilation system.
j	Identify zones that are dominating multi-zone system operations. For		Recommend solutions to isolate these Zones.

	example, corner zones or zones recently converted to server rooms.		
2. Lighting			
a	Identify any areas where lighting levels appear to be significantly higher than necessary for the space use and occupant needs.		Recommend areas which could benefit from dimming or de-lamping and/or where the lighting power density can be improved.
b	Verify lighting sensors are working and are located as necessary for the current functioning of the building.	Identify areas which could benefit from occupancy or daylight sensors.	
c	Review lighting controls schedules and sequences.	Set or adjust as Appropriate to match actual building use patterns.	
3. Domestic Hot Water			
a	Review domestic hot water temperature set points.	Adjust set points to improve efficiency, as Appropriate for building use and occupant needs.	
b	Review circulation pump controls.	Set or adjust, as Appropriate, according to ANSI/ASHRAE/ACCA Standard 180-2012 Table 5-21.	
4. Water Usage			
a	In irrigated areas 500 square feet or more, verify irrigation schedule are in place, and review schedules.		Identify opportunities for schedule improvements to improve efficiency and recommend appropriate action (e.g. one schedule over many landscape Zones).
b	Verify irrigation rain sensors are calibrated, functioning properly, and located appropriately to collect relevant moisture data to trigger the system operating system.	Adjust, calibrate, or repair as Appropriate.	
c	Verify cooling tower conductivity meter used to control blow down is calibrated and functioning properly.	Adjust as Appropriate.	Recommend repair.
d	Review water feature schedules.	Set to shut-down during night-time or unoccupied periods where Appropriate.	

C. Maintenance, Cleaning, and Repair

Table 2: Maintenance, Cleaning, and Repair Elements of a Building Tune-Up

	Assessment Elements	Follow-Up Actions per Assessment Findings	
		Corrective Actions – Maintenance Actions (Required)	Recommendations (Voluntary)
1. Heating, Ventilation, and Air Conditioning			
a	Verify HVAC equipment is clean and adequately maintained according to ANSI/ASHRAE/ACCA Standard 180-2012 Table 5-2, 5-15 (such as grilles, coils, and ducts).	Clean where adversely impacting system performance.	
b	Check filters and strainers for undue build-up or restricted air or water flow.	Clean or replace filters and strainers where appropriate and where they are adversely impacting system performance.	Recommend maintenance protocols . Refer to ANSI/ASHRAE/ACCA Standard 180-2012 Table 5-2, 5-22.
c	Verify that equipment observed during the assessment is in good working condition (such as motors, fans, pumps, belts, pulleys, bearings, and steam traps). Refer to ANSI/ASHRAE/ACCA Standard 180-2012 Table 5-2, 5-22 for standards.	Repair as Appropriate if doing so is generally a standard or regular maintenance action.	Recommend repairs or replacement if scope of work is more than standard maintenance.
d	If ducts and pipes are visible and accessible, verify that HVAC duct and pipe insulation is in place.		Recommend installation or repair.
e	Check valves and dampers for appropriate function.	Adjust according to ANSI/ASHRAE/ACCA Standard 180-2012 Table 5-9, 5-12 if not opening and closing fully.	
f	Identify equipment approaching the end of its service life, per ASHRAE Service Life Database.		Recommend replacement plan and schedule.
2. Lighting			
a	Identify inefficient lighting equipment (such as incandescent, T12, or metal halide lighting).		Recommend replacement.
3. Water Usage			
a	Check irrigation system for leaks, overspray, broken heads, foliage blocking, plugged nozzles, excess pressure, or other operational problems.	Adjust and repair as Appropriate for standard or regular maintenance actions.	Recommend repair if scope of work is more than standard maintenance.

b	Check plumbing fixtures for leaks.	Repair as Appropriate for standard or regular maintenance actions.	Recommend repair if scope of work is more than standard maintenance.
c	Check hands free sensor-activated plumbing fixtures for proper operation.		Recommend repairs if scope of work is more than standard maintenance.
d	Check water flow fixtures.		Recommend low flow fixture or aerator replacements.
e	Evaluate cooling towers for water leaks and excess water consumption.	Repair as Appropriate for standard or regular maintenance actions.	Recommend repairs if scope of work is more than standard maintenance.
4. Envelope			
a	Check for roof penetrations and damage to siding that allows the entry of air or water or gaps in building envelope (such as areas requiring weather-stripping, dampers, top of elevator shaft, broken windows, and/or doors propped open).		Recommend repairs if scope of work is more than standard maintenance.
b	Identify duct leaks (such as disconnects and/or holes).		Recommend repairs if scope of work is more than standard maintenance.
c	Identify any uninsulated attic areas or areas where attic insulation has been disturbed.		Recommend improvements if scope of work is more than standard maintenance.

12. QUALIFICATIONS OF TUNE-UP SPECIALISTS

Per SMC 22.930.080, a building tune-up must be conducted by a qualified Tune-Up Specialist, or conducted by a team that is under the direct supervision and oversight of a qualified Tune-Up Specialist, with the Tune-Up Specialist finalizing and signing the Seattle Tune-Up Report. Individuals must meet the qualifications listed below in subsections 12.A and 12.B to qualify as a Tune-Up Specialist. All certifications must be current, with proof of certification and years of experience provided when the final Tune-Up Report is submitted to the OSE Director. A Tune-Up Specialist may be either a third party vendor or on-site staff, provided that they meet the Tune-Up Specialist qualifications in this Section. Tune-up reports submitted by persons not meeting the Tune-Up Specialist qualifications will be rejected.

Qualifications:

- A. At least seven years of experience, including educational and/or professional experience, with commercial building operations and/or building energy management; and
- B. One of the following:

- i. Level II Building Operator Certification (BOC) – as certified by the Northwest Energy Efficiency Council (NEEC)
- ii. Certified Energy Manager Certification (CEM) – as certified by the Association of Energy Engineers (AEE)
- iii. Existing Building Commissioning Professional (EBCP) – as certified by the AEE
- iv. Professional Engineer (PE) in mechanical engineering or architectural engineering – Licensed by the Washington State Department of Licensing and with appropriate expertise to professionally advise on building energy efficiency in building operations, per Washington Administrative Code (WAC) 196-27A-020(2)(d).
- v. Sustainable Building Science Technology Bachelor of Applied Science (BAS) degree - granted by South Seattle College or other equivalent Bachelor's degree program focused on commercial building energy management and conservation, as determined by the OSE Director.
- vi. Certified Commissioning Professional (CCP) – as certified by the Building Commissioning Certification Board (BCCB)
- vii. Commissioning Authority (CxA) – as certified by the AABC Commissioning Group (ACG)
- viii. Graduation from an apprenticeship program that is predominantly focused on commercial building energy management and/or commercial building energy conservation, as determined by the OSE Director.

13. ENFORCEMENT AND PENALTIES FOR NON-COMPLIANCE

Per SMC 22.930.110, the OSE Director may issue a notice of violation (NOV) to the Building Owner for non-compliance. A determination of non-compliance may be made for the following reasons:

- A. Not submitting a Seattle Building Tune-Up Report;
- B. Submitting a Seattle Building Tune-Up Report with inaccurate data;
- C. Submitting an incomplete Seattle Building Tune-Up Report. Examples include:
 - i. Failing to specify the required qualifications for the selected Tune-Up Specialist; or
 - ii. Failing to indicate the required Corrective Actions were implemented after the Tune-Up Assessment.
- D. Failure to complete either a Tune-Up Assessment or the Corrective Actions identified in a Tune-Up Assessment.

Owner responses to the notice of violation and related procedures are outlined in SMC subsections 22.930.130 through 22.930.220. Penalties for failure to comply, per SMC 22.930.210 are as follows:

Building or Nonresidential Space Size:	1st Penalty per Compliance Cycle, Assessed at 180 Days after Due Date:	2nd and Final Penalty per Compliance Cycle, Assessed at 360 Days after Due Date:
200,000 gross square feet or greater excluding parking	\$5,000	\$20,000
100,000 – 199,999 gross square feet excluding parking	\$2,500	\$10,000

50,000 – 99,999 gross square feet excluding parking	\$2,000	\$8,000
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In addition to the fines noted above, if the OSE Director determines a Building Owner has intentionally misrepresented the results on the Seattle Building Tune-Up Report, the Director may impose a \$5,000 fine for the first violation and a \$10,000 fine for subsequent violations

14. ENFORCEMENT GRACE PERIODS

Per SMC 22.930, the OSE Director has the authority to issue grace periods on compliance dates and/or enforcement deadlines. If enacted, grace periods will be applied consistently across all buildings within a building type and size group. Information about grace periods will be provided on the City's Building Tune-Ups website.

15. CONFIDENTIALITY

Under Washington State Law (RCW Chapter 42.56, the *Public Records Act*) all records received or created by the City of Seattle are considered public records. Public records include annual energy consumption reports as required under Seattle Municipal Code, SMC 22.920.

The Public Records Act (PRA) requires that public records must be promptly disclosed by the City upon request unless the PRA or other statute specifically exempts records from disclosure.

If a Building Owner or Tenant believes any of the records they are submitting to the City in compliance with the requirements of SMC 22.930 are exempt from disclosure under the PRA, they can request that the City provide notice prior to disclosure so the Building Owner or Tenant has an opportunity to pursue court action to prevent disclosure. To do so, the Building Owner or Tenant must very clearly and specifically identify the records and the exemption(s) that may apply. Only the specific records or portions of records properly identified will be withheld for the purpose of providing notification. All other information submitted to the City will be considered fully disclosable upon request.

The City will not assert an exemption from disclosure on a Building Owner or Tenant's behalf. If the City receives a public disclosure request for any records that a Building Owner or Tenant has properly and specifically identified, the City may notify them in writing of the request and postpone disclosure. While it is not a legal obligation, the City may allow up to ten business days after notification for the Building Owner or Tenant to obtain a court injunction to prevent the City from releasing the records (per RCW 42.56.540). If the Building Owner or Tenant fails to obtain a court order within the ten-day period, the City may release the information.