

Local Law 87/09 Energy Audits & Retro-commissioning

Information Session

September 13th, 2019

NYC
Buildings

Learning Objectives

- Get an overview of LL87/09 administrative & technical rule amendment
- Learn about the DERPA Tool , energy audit template tool, and other changes to the protocol of the EER submission
- Recognize key metrics and best practices that define a successful, effective and result-oriented energy auditing and retro-commissioning exercise
- Become familiar with what is coming up on the horizon for implementation and enforcement of LL87/09

Basis & Purpose of Rule Amendment

- Replace the guidelines in the reference section with ANSI-approved standards for procedures required to perform energy auditing and retro-commissioning in a uniform manner.
- Restrict the approved agency qualifications and registration to Registered Design Professionals for submissions of EER's
- Standardize functional performance testing protocols, clarify current facility requirements and simplify sampling requirements
- Provide instructions for buildings located on different blocks with shared base building systems and multiple covered buildings that are part of a cooperative corporation
- Introduce changes to the requirements for extension requests, comprehensive reviews and violation challenges

What's new?



- Definition Section
- References for Energy Auditing and Retro-Commissioning
- Energy Auditing and Retro-commissioning Qualifications
- Contents of Energy Auditing and Retro-Commissioning
- Procedures for Energy Auditing and Retro-Commissioning
- Current Facility Requirements
- HVAC and service water equipment
- HVAC and service water distribution
- Lighting Systems
- Envelope
- Training Documentation
- DERPA tool
- Extension of time to file report
- Multiple Buildings on different tax blocks
- EER under comprehensive review
- Challenges to violations

Definition Section

Acceptable Energy Efficiency Report (EER)

An **acceptable** EER is a technical energy audit and retro-commissioning report filed by an energy auditor and retro-commissioning agent that meets the requirements of the Administrative Code **as determined by the department**

Common Area

Common area is an area that is not considered a tenant area. Typically includes but is not limited to **non-occupiable spaces** such as egress corridors, egress stairwells, elevators, lobbies, public restrooms, janitorial closets, shared amenities, storage, mechanical and electrical rooms containing equipment that is owned, maintained and operated by building owner

Non-Common Owner Area

A non- common owner area is an **occupiable space**, as defined in section 202 of the building code, that:

- is not a non-common tenant area
- is maintained by and accessible to the building owner

Non-Common Tenant Area

A non -common tenant area is an area of a dwelling unit or other leased space leased or intended to be leased



Definition Section

Major equipment

Major equipment is a base building system listed in Table 1:



Sub-equipment and components

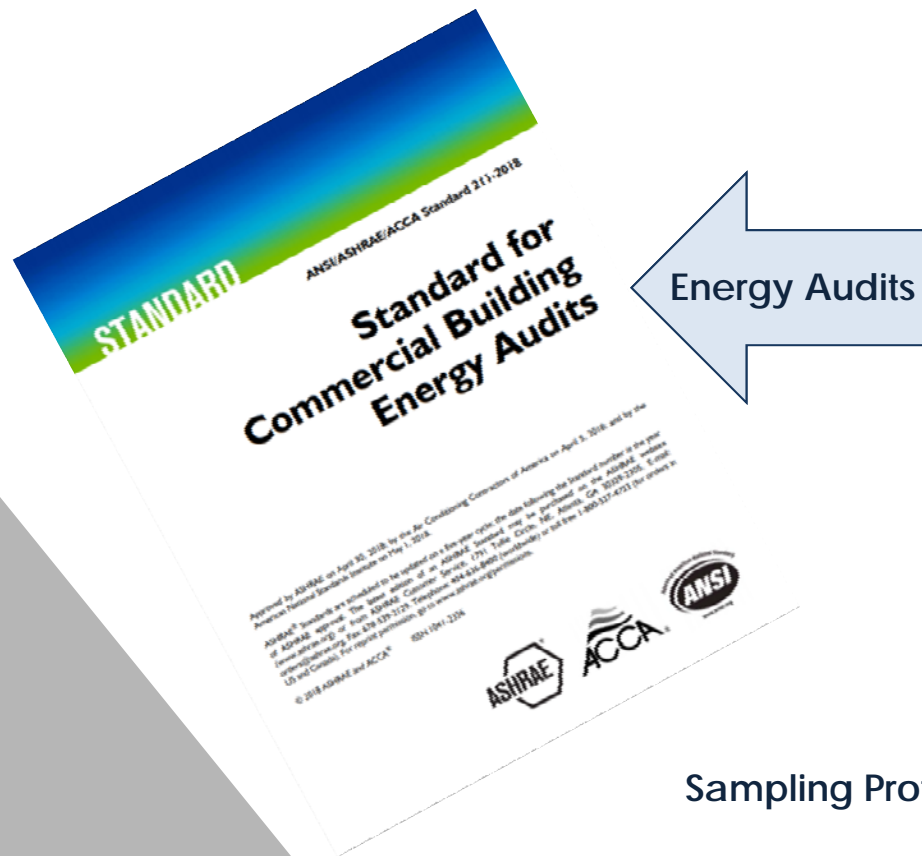
of the associated major equipment are listed in Table 2:

	Group R occupancies	All occupancies other than Group R
<u>Boilers</u>	All boilers with rated input capacity greater than or equal to 300,000 Btu/h	
<u>Chillers</u>	All chillers	All chillers
<u>Cooling Towers and Dry Coolers</u>	All cooling towers and dry coolers	All cooling towers and dry coolers
<u>Air Handling Units (AHU), Fan Coil Units (FCU), Heat Recovery Units (HRU), Heating and Ventilation Units (H&V), Packaged and Split Air Conditioning Units</u>	Capacity greater than or equal to 2,500 CFMs	Capacity greater than or equal to 5,000 CFMs
<u>HVAC motors, fans and pumps</u>	Greater than or equal to 2.5HP	Greater than or equal to 5 HP
<u>Heat exchangers</u>	Serving 10,000 square feet or more	
<u>Domestic hot water heaters (Storage and Instantaneous)</u>	All water heaters with rated input capacity greater than 155,000 Btu/h	
<u>Domestic Water pumps</u>	Greater than or equal to 10 HP	

Sub-Equipment and Components		
<u>Existing cabinets/casing</u>	<u>Valves</u>	<u>Grilles</u>
<u>Terminal and induction units</u>	<u>Actuators</u>	<u>Filters</u>
<u>Access doors</u>	<u>Dampers</u>	<u>Air outlets</u>
<u>Control panels</u>	<u>Chilled or hot water coils</u>	<u>Fans and motors</u>
<u>Controls and sensors</u>	<u>Steam or DX coils</u>	<u>VFDs</u>
<u>Interlocks</u>	<u>Belts</u>	<u>Ductwork</u>
<u>Electrical/mechanical switches</u>	<u>VAV and fan powered boxes</u>	<u>Piping</u>
<u>Operating and modulating pressure controls</u>	<u>Steam traps</u>	

Energy Audit Reference

An ASHRAE Level II Energy Audit must be performed on the base building systems of a covered building prior to filing an EER



- Provides consistent practices for conducting and reporting energy audit findings for commercial buildings
- Defines procedures required to perform Energy Audit Levels 1, 2, and 3
- Provides a common scope of work for these audit levels for use by building owners and others
- Establishes minimum reporting requirements for energy audit findings

Sampling Protocol

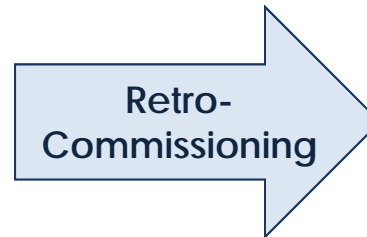
Marginal Cost

Notice of Objections

Retro-Commissioning Reference

*New ANSI Approved NEBB Standard
S120-2016-Technical Retro-Commissioning of Existing Buildings*

- *Identifies the minimum acceptable effort required for a Technical Retro-Commissioning project*
- *Provides required processes, technical procedures, methods, and documentation for a Retro-Commissioning project methodology to discover existing operating conditions and to improve the operation and function of existing building systems*



Technical Retro-Commissioning of Existing Buildings



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Energy Auditor Qualifications

The energy auditor performing or supervising the audit may not be on the staff of the building being audited. The energy auditor must be a registered design professional, and the energy auditor or an individual under the direct supervision of the energy auditor must be one of the following:

Acceptable Certifications:

- CEM or CEA certified by (AEE)
- HPBDP certified by (ASHRAE)
- BEAP certified by (ASHRAE)
- MFBA certified by (BPI) (ONLY for multi-family audits)



An energy auditor or retro-commissioning agent who is currently registered with the department and is not a registered design professional may continue to submit the EER as an approved agent until the expiration of the registration or December 31, 2021, whichever occurs first. No registration shall be renewed once expired.

Retro-Commissioning Qualifications

The retro-commissioning agent must be a registered design professional, a certified Refrigerating System Operating Engineer, or a licensed High Pressure Boiler Operating Engineer. In addition, the retro-commissioning agent or an individual under the direct supervision of the retro-commissioning agent must be one of the following:

Acceptable Retro-Cx Certifications

- A Certified Commissioning Professional certified by the Building Commissioning Association
- A Certified Building Commissioning Professional certified by the AEE
- An Existing Building Commissioning Professional certified by the AEE
- *A Commissioning Process Management Professional certified by ASHRAE*
- An Accredited Commissioning Process Authority Professional approved by the University of Wisconsin
- **A certified Commissioning Authority certified by the Associated Air Balance Council Commissioning Group (AABC / ACG)**
- **A Building Commissioning Professional certified by ASHRAE**
- **A Commissioning Process Professional certified by NEBB**
- **A Technical Retro-Commissioning Professional certified by NEBB**
- **A Building Systems Commissioning Professional certified by NEBB**

Contents and Procedures of Energy Audit

The scope of the energy audit must be at a minimum equivalent to the procedures, requirements, and reporting described for a Level II energy audit.

- The **Table of contents** of the audit report must include all of the sections provided in the Level II energy audit report outline in Informative Annex D of standard 211-2018, or subsequent edition.
- The energy audit report and certification form must be uploaded through the web-based Energy Audit template tool

Level 2 Report Outline

1. EXECUTIVE SUMMARY
 - a. Overall assessment of benchmarking and energy performance
 - b. Aggregated savings and costs of recommended measures
 - c. Table of recommended measures with savings and costs
 2. INTRODUCTION
 - a. Audit scope
 - b. Key dates
 - c. Contact information
 3. FACILITY DESCRIPTION
 - a. Building information
 - b. Building envelope
 - c. Heating, ventilating, and air conditioning (HVAC)
 - d. Service hot water (SHW)/domestic hot water (DHW)
 - e. Lighting
 - f. Process and plug loads
 4. HISTORICAL UTILITY DATA
 - a. Data summary
 - b. Utility rate structures
 - c. Benchmarking
 - d. Target and savings estimate
 - e. End-use breakdown
 5. ENERGY SAVING OPPORTUNITIES
 - a. Low-cost/no-cost savings measures
 - b. Capital projects
 - c. Distributed/renewable energy opportunity
 - d. Energy efficiency measures (EEMs) considered but not recommended
 6. EEM COST ESTIMATES
 7. EEM ECONOMIC ANALYSIS
 8. QUALITY ASSURANCE
- APPENDICES
- Tabulated utility data (Annex C tables)
 - Utility rate schedules (Annex C tables)
 - Calculation methodology
 - Savings calculations
 - Cost estimates
 - Lighting and equipment inventory tables
 - Operations and maintenance (O&M) logs
 - Equipment specifications

Retro-Commissioning Procedures

The major equipment, sub-equipment and components must be assessed in accordance with the NEBB standard S120-2016 or any subsequent edition- Technical Retro Commissioning of Existing Buildings and 28-308.3 of the Administrative Code, that include the technical retro-commissioning process, the testing protocols, master list of the findings, deficiencies corrected, and documentation.

- HVAC and service water equipment
- HVAC and service water distribution
- Lighting Systems
- Envelope
- Training and Documentation



Retro-Commissioning Contents

When establishing the table of contents, the retro-commissioning agent shall refer to:

“Informative Appendix- Retro-Commissioning report: of the NEBB standard S120-2016 Rev.1-2017 or any subsequent edition- Technical Retro- Commissioning of Existing Building guidelines until a final retro-commissioning report outline is prescribed by the department. Such report must include the following information on equipment used for testing :

- Model #
- Serial #
- Manufacturer
- Last calibration date
- Manufacturer recommended calibration frequency

The report must also include photos of deficiencies corrected, adjustments made and repairs. All photos within the report must include a time/date stamp visible on the front of the photo. Calibration certifications and additional photos must be provided, if requested by the department

Current Facility Requirements

CFR will be the following for all space uses served by a base building systems, unless the agent provides acceptable rationale demonstrating otherwise. Acceptable rationale must be documented and can include the needs of a space use as defined by owner interviews, tenant leasing requirements, and tenant controlled set points. The CFR must be justified by acceptable references.

Current Facility Requirements (CFR) are the building's present operational needs and requirements that include:

- Temperature set points
- Steam operating pressures
- Domestic hot water delivery temperatures
- Ventilation rates
- Lighting levels

Acceptable references:

- (IES) Illuminating Engineering society handbook
- (HMC) New York City housing Maintenance Code
- (BC) New York City Building Code
- ASHRAE fundamentals handbook
- ASHRAE HVAC systems and equipment handbook

Current Facility Requirements

Acceptable rationale does not include those needs that result from deficient equipment or historic operations

- Winter Indoor space temperatures should be between **68 and 76 degrees F** and summer indoor temperatures should be between **72 and 80 degrees F** during occupied periods of time for non-common tenant areas (without individual HVAC controls) and non-common owner areas of the facility
- Operating steam system pressure (cut-out setting) **should not be greater than four psig** for low pressure steam heated buildings. For any building requiring higher operating steam pressure, substantial documentation, including design/as-built documents indicating design operating steam pressure shall be submitted to, and acceptable to the department.
- Domestic hot water is stored and delivered per the HMC for Group R occupancies and per New York City plumbing code requirements for all other occupancies
- Minimum outside air requirements are met in areas with mechanical supply ventilation per the design and/ or New York City Mechanical Code, effective at the time of installation of the major equipment
- Lighting levels (foot candles) are in accordance with the BC and HMC for all egress lighting, including common laundry rooms, and in accordance with the IES lighting handbook for all other space use types in the common areas and non-common owner areas.

HVAC and service water equipment

- Pre-testing verification of all major equipment and its sub- equipment components
- Functional performance testing
- Temperature and pressure setpoints and setbacks
- Sensors calibration
- Simultaneous heating and cooling
- Boilers tuned for optimal efficiency
- Manual Override remediation
- Leaks



HVAC and service water equipment

Pre-testing Verification

An inspection of all the **major equipment and its sub-equipment and components located in common areas covering at least 20% of equipment located in non-common areas, and at least 10% of equipment located in accessible non-common tenant areas**. Pre testing must be conducted to check for cleanliness and proper operation. Inspections ensure that the system is able to be tested. Where major equipment, sub-equipment and components are found to require cleaning, repair or correction for proper operation, correct all deficiencies prior to conducting functional performance testing and document the post-correction condition in the retro-commissioning report under the issues log.

Functional Performance Testing

Performance verification through functional performance testing for all major equipment and its sub-equipment and components **must be performed during normal operating conditions**. Functional performance testing includes but is not limited to: all controls, actuation, automation and sequencing functions that impact energy consumption of the major equipment such as control sequences of operation, economizer functions, staging and load distribution, automatic reset function and integrated system level testing. The functional performance test process and results must be reported on forms acceptable to the department. **Completed functional performance test forms must be included in the retro-commissioning report.**

HVAC and service water equipment

Temperature and pressure setpoints and setbacks

- All major equipment and its sub-equipment and components **located in all common areas, at least 20% of such equipment located in the non-common owner areas and at least 10% of such equipment located in the non-common tenant areas** must be tested to verify that such system set points are appropriate to the CFR and setbacks operate during unoccupied periods as indicated in the CFR.

Sensors calibration

- Critical and Monitoring sensors associated with major equipment

<u>AHU/FCU/H&V/Packaged and Split AC Units</u>	<u>BOILER</u>	<u>COOLING TOWER</u>	<u>CHILLER</u>
<u>OA temp</u>	<u>OA temp</u>	<u>OA temp (Dry bulb and wet bulb)</u>	<u>OA temp</u>
<u>Supply and Return air temp</u>	<u>Return temp</u>	<u>Inlet water temp</u>	<u>Evap. water temp in</u>
<u>Mixed air temp</u>	<u>Supply temp</u>	<u>Outlet water temp</u>	<u>Evap. water temp out</u>
<u>Supply and return air flow rate</u>	<u>System pressures (Steam Boilers)</u>	<u>Flow rate</u>	<u>Cond water temp in</u>
<u>Static pressure</u>	<u>Indoor zone temp</u>	<u>Humidity</u>	<u>Cond water temp out</u>
<u>Zone temp</u>	=	<u>Supply and return temp</u>	<u>Zone temp and System pressures</u>

- All critical sensors that are part of a control sequence and have direct control of major equipment located **in the common area** must be tested for proper calibration. Acceptable and allowable tolerances for proper calibration must be supported by a reference acceptable to industry or manufacturer's guidelines.
- For monitoring sensors that are not part of the control sequence, a sample set constituting **at least 10% of all monitoring sensors within the common area must be tested for calibration.** If less than 80% of the sample set is satisfactory then all monitoring must be tested for proper calibration. The condition must be corrected and the post correction conditions must be documented in the retro-cx report

HVAC and service water equipment

Simultaneous Heating and Cooling

- All major equipment **air handling units located in common areas and at least 20 % of major equipment air handling units located in non-common owner areas** must be tested to verify that simultaneous heating and cooling is not occurring, unless intended

Boilers Tuned for optimal efficiency

- A combustion efficiency test must be conducted for each **low pressure major equipment boiler (includes H-stamped domestic hot water heaters)**. Each boiler must be tuned and cleaned to perform as per manufacturer's guidelines for combustion efficiency. If the manufacturer's guidelines are not available, cleaning/tuning and combustion efficiency testing must be conducted to meet the requirements in Table 4 below **at high and low fire rates for all fuel types**. Results of the combustion efficiency test (**Actual print-outs directly obtained from the calibrated combustion analyzer**) must be included in the retro-commissioning report.

Table 4: Acceptable Range for Combustion Efficiency Test Results

	High Fire			Low Fire	
	Residential/Commercial Gas Fired		Commercial Oil Fired	Commercial Gas Fired	Commercial Oil Fired
	Atmospheric and Fan Assist Boilers	Power Burners	Power Burners	Power Burners	Power Burners
Oxygen (%)	6% to 9%	3% to 6%	3% to 6%	5% to 8%	6% to 10%
Stack temperature (deg. F)	325 to 450	350 to 550	350 to 500	300 to 380	300 to 400
Carbon Monoxide (ppm) Air Free	<50 ppm	<100 ppm	<100 ppm	<100 ppm	<100 ppm
Smoke number	=	=	Zero or Per manufacturer requirements	=	Zero or Per manufacturer requirements

HVAC and service water equipment

Manual Override Remediation

- In all cases where the major equipment has the capability of being operated automatically, the retro-commissioning agent must confirm that the major equipment is not being manually operated. If manual override conditions exist, it must be noted as a deficiency to be corrected, and the post-correction condition must be documented in the retro-commissioning report

Leaks

- Major equipment, sub-equipment and components located in all common areas , at least 20% of equipment located in non-common owner areas, and at least 10% of equipment located in accessible non-common tenant areas must be visually checked for **water, steam, oil, or air leaks**. These checks do not include duct tightness testing.

HVAC and service water distribution

- Pipe insulation
- High pressure steam traps
- One-pipe steam distribution
- Two-pipe steam distribution
- Air-side distribution
- Water-side distribution
- Domestic hot water system
- Mechanical ventilation rates



HVAC and service water distribution

Pipe Insulation

- All exposed (**uninsulated and/or with deteriorated insulation**) pipes that are three inches or greater in diameter, pipe fittings and associated valves **located in the common areas, at least 20% of sub-equipment located non-common owner areas and at least 10% of such sub-equipment located in non-common tenant areas**, that contain steam or fluid outside the operating temperature range of 60 degrees F and 105 degrees F must be thermally insulated in accordance with the **New York City Energy Conservation Code, in effect at the time of installation** , and the post correction condition must be documented in the retro-commissioning report

Exception: Existing insulation with asbestos containing material is not required to be removed or replaced for the purposes of retro-commissioning report. The condition must be noted on the report and correction of the condition is not required.

High Pressure Steam Traps

- All high pressure traps operating above 15 PSI must be tested **using ultrasonic leak detection** to verify proper operations or must be replaced. All steam traps found to be functioning improperly must be replaced, repaired or rebuilt, and the post-correction condition must be noted in the retro-commissioning report

HVAC and service water distribution

One-Pipe Steam Distribution

- All one pipe steam distribution systems serving major equipment must have steam travel duration times from the steam header to the end of each main loop vent that are **an average of less than five minutes**.
- Retro-cx agents must conduct the **steam travel time test** using temperature data loggers (temperature sensors/thermocouples) that provide an output of timestamps and surface temperature readings. **At the beginning of each test, the temperature at the end of each main loop vent must be 140 degrees F or less. At the end of the test, the end of each main loop vent must be 195 degrees F or more.**
- The time for which it takes the steam header to reach at least 195 degrees F and the end of each loop vent(s) reaching at least 195 degrees F must be less than five minutes.
- **A temperature vs. time curve must be plotted in 10-second intervals and all data points logged that are used to plot the curve must be listed in a table.** Data points must include time from the start of the boiler/burner until the steam reaches the header and then to the end of all main loops.
- The retro-cx agent must **provide a schematic plan of the steam piping distribution in the common area.** The schematic plan should indicate the location of the boiler(s), supply lines , header and each main line vent.

HVAC and service water distribution

Two-Pipe Steam Distribution

SCENARIO A

- The main supply and main return piping surface temperatures for all two-pipe steam distribution systems that serve major equipment must have a differential of 30 degrees F or more.
- The retro-commissioning agent must conduct the **differential temperature test** utilizing temperature data loggers (temperature sensors or thermocouples) that provide an output listing timestamps and surface temperature readings.
- The retro-commissioning agent must provide Pressure vs. Time and Temperature vs. Time **graphs recorded in intervals of 5 minutes**. The temperature readings must be recorded using data loggers and located on the main supply/header and main return piping, on the inlet of a condensate/vacuum tank.
- This test cannot be performed on systems with master traps or double steam traps; it also cannot be performed on systems with heat exchangers and heat recovery systems that are used to cool the condensate. The data loggers must provide readings during two consecutive cycles of the boiler where each cycle (boiler run time) takes at least 30 minutes at the design operating pressure.

HVAC and service water distribution

Two Pipe Distribution

SCENARIO B

- In the event that a two-pipe steam distribution system has a differential between **the main supply and main return piping surface temperatures of not more than 30 degrees F** for any duration of the test specified above, all steam traps in the common areas, at least 20% of steam traps in the non-common owner areas and at least 10% of steam traps in the non-common tenant area, that are served by the major equipment, must be tested to verify proper function.
- If less than 80% of the sample set, for each sample size, is found to be functioning properly, then all respective areas served by the two pipe steam distribution system must be tested to verify the steam traps are functioning properly. All steam traps found to be functioning improperly must be replaced, repaired, rebuilt, or removed and the post-correction condition must be documented in the retro-commissioning report.
- Steam trap testing **must utilize ultrasonic leak detection technology and/or a thermal imaging camera (as necessary) to determine the trap condition.**
- If the work required is so extensive that it would require more time than available to meet the compliance deadline, the condition may be corrected within two years of submitting the retro-commissioning report to the department and must be noted in the report. Documented verification must be submitted on a form provided by the department showing that the differential temperature between the main supply and main return piping surface is more than 30 degrees F for any duration of the test specified in the differential temperature test described in subparagraph (A) above, after replacement, repair or rebuilding of the deficient steam traps.

HVAC and service water distribution

Two Pipe Distribution

Exception to both Scenario A and Scenario B

If all steam traps in the common areas, at least 20% of steam traps in the non-common owner areas and at least 10% of the steam traps in the non-common tenant areas **have been replaced and/or tested and verified as functioning properly, within five years of the date the EER is submitted, and supporting documentation that is acceptable to the department is provided, then testing of steam traps is not required.** Acceptable supporting documentation includes, but is not limited to, copies of paid invoices for the completed work, steam trap test reports and post-correction findings.

HVAC and service water distribution

Air- side distribution

- All dampers, fans, actuators, and controls associated with air-side distribution serving major equipment must be functionally tested for proper operation as per CFR.
- Where deficiency is identified , the conditioned must be corrected and the post correction condition must be included in the retro-commissioning report
- Completed functional performance test forms must be included in the retro-commissioning report

Water-side Distribution

- All valves on coils, automatic isolation valves at pumps , actuators and controls associated with the water- side distribution serving major equipment must be functionally tested for proper operation as per CFR.
- Where deficiency is identified , the conditioned must be corrected and the post correction condition must be included in the retro-commissioning report
- Completed functional performance test forms must be included in the retro-commissioning report

TESTING , ADJUSTING, and BALANCING (TAB) Report as certified by NEBB, TABB, or AABC is NOT Required

HVAC and service water distribution

Domestic Hot Water System

- All storage and delivery hot water temperatures of major equipment hot water heaters must be checked to verify that the hot water temperature settings are appropriate for the CFR
- Where deficiency is identified, the condition must be corrected and the post correction condition must be included in the retro-commissioning report
- Completed functional performance test forms must be included in the retro-commissioning report

Mechanical Ventilation Rates

- A sample set constituting at least 10% of all mechanical outdoor air intakes, but in no event fewer than three outdoor air intakes, must be measured to verify that the flow rates are appropriate for the CFR
- If more than 80% of the sample set is found to be appropriate then no further sampling is required for the purposes of the retro-cx report
- If less than 80% of the sampling is found to be appropriate, then all mechanical outdoor air intakes serving base building systems must be measured
- Where flow rates require correction, the condition must be included in the retro-commissioning report

Lighting Systems and Envelope

Lighting Levels

- Lighting levels (foot candles) in **all common areas and lighting levels in at least 20% of the non-common owner areas must comply with the CFR.** The sample set should include at least 10% of each area of different use.

Sensors and controls

- **All interior lighting systems in the common areas, at least 20% of the interior lighting systems in the non-common owner areas, and all exterior lighting systems** must be checked to verify that the lighting sensors and associated automatic lighting controls are functioning properly.

Sealants and Weather-stripping

- An inspection must be conducted **in all common areas, at least 20% of non-common owner areas and at least 10% of non-common tenant areas** to confirm that accessible sealants and weather stripping are installed around doors, windows, conduits, piping, joints, and other areas of potential major air infiltration and in good condition.

Exception: sealants and weather stripping with asbestos do not have to be removed or replaced

Windows and Doors

- An inspection must be conducted **in common areas** to confirm that all windows and doors are in good condition.

Training and Documentation

On-site documentation in accordance with § 28-308.3(3) of the Administrative Code must be verified and noted in the retro-commissioning report.

Training of critical operations and maintenance staff on the energy conservation techniques and **preventative maintenance schedules based on manufacturer's guidelines or recognized industry standards**, for all major equipment and sub-systems must be documented in the retro-commissioning report

Multiple Buildings Reporting

Multiple buildings on different tax blocks with shared base building systems

- Two or more buildings on separate blocks that constitute a covered building in accordance with § 28-308.1 of the Administrative Code are subject to the requirements for an EER for each grouping of buildings that share base building systems.
- The due date for the EER will be in the calendar year with a final digit that is the same as the last digit of the block number that is highest or with respect to a city building as defined in § 28-308.1 of the Administrative Code in accordance with the schedule of the Department of Citywide Administrative Services.
- **The owner must notify the department by December 31 of the year in which the earliest covered building out of all covered buildings on different blocks with shared base building system(s) is due to comply, through the form prescribed by the department.**

Multiple Buildings Reporting

Multiple covered Buildings under Cooperative Corporations

- A cooperative corporation that owns multiple covered buildings located on different tax block numbers that is required to file an EER for more than one covered building in different calendar years, may consolidate all such EERs into one report, **disaggregated by covered building**, due no later than the year in which the last EER would be due, which shall be accepted by the department for each covered building included in such consolidated report.
- The owner must notify the department by December 31 of the year in which the earliest covered building is due to comply through the form prescribed by the department

Extension of Time to File Report

- An owner may apply for an extension of time to file an [energy efficiency report] EER if, despite good faith efforts, the owner is unable to complete the required energy audit and retro-commissioning prior to the due date of the report, for reasons other than financial hardship of the building. The application must be on a form provided by the department and must be filed by ~~{October 1}~~ **December 31** of the year in which the report is due.



Financial Hardship Criteria:

- An owner may apply for annual extensions of time to file an EER based on the financial hardship of the building.
- The application must be on a form provided by the department and must be filed by October 1 of the year in which the report is due and by ~~{October 1}~~ **December 31** of every subsequent year for which an extension is requested.

EER under Comprehensive Review

- A violation will be issued if an EER submission that is chosen for comprehensive review fails to resolve all issued objections after three revisions, or two years from the date of issuance of the first Notice of Objections, whichever occurs first. Such EER submission shall be subject to a penalty for failure to submit an acceptable EER.

Online Energy Audit Tool

Beginning this year, 2019, the Energy Audit Excel tool has been replaced by the online EA Template. The Energy audit Tool (excel workbook will no longer be accepted for submission)

The following documents are required to be uploaded through the web-based platform, now referred to as the Energy Audit template:

- *A PDF of the final Energy Efficiency Report (ASHRAE Level II audit report and Retro-Commissioning Report) that is required to be provided to the building owner*
- *A PDF of the signed and completed EERC1 Professional Certification: Energy Auditor and owner statements*

Select the "Submit to City ," button which will forward your submission to New York City Department of Buildings. You will then receive an email with the Building Name, Submission ID, and a Submission Date

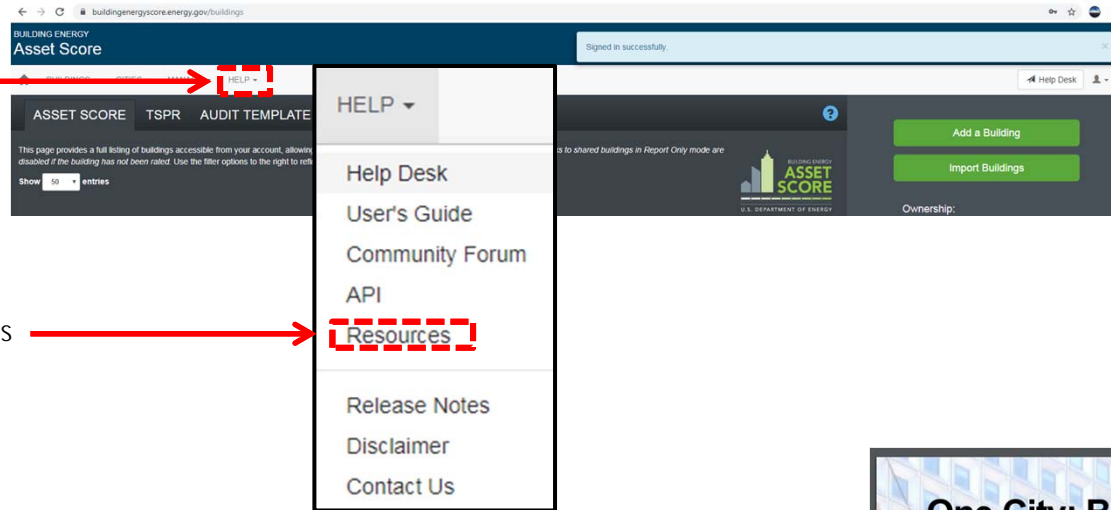
Once received, submit a PDF copy of that email and the Retro-Commissioning Data Collection Tool (Excel Workbook) and EERC2 Professional Certification : Retro-Commissioning Agent and Owner Statement (PDF) to LL87@buildings.nyc.gov to complete the LL87 submission

Energy Audit Tool Help

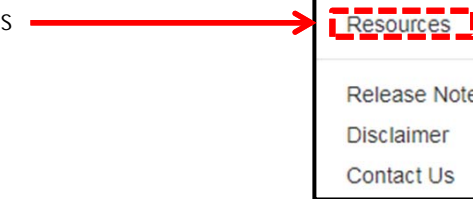
For more information on how to use the EA tool please visit

https://buildingenergyscore.energy.gov/d/users/sign_in

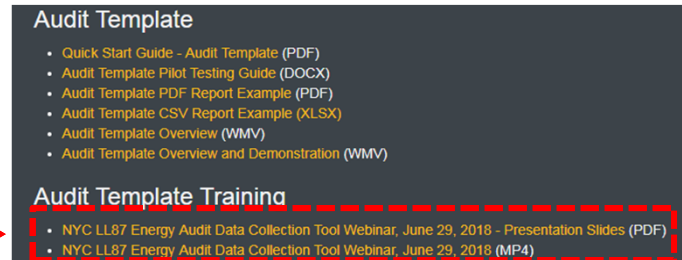
1. Click on the Help Tab



2. Scroll down to Resources



3. Scroll down to Audit Template Training and click on Webinar option



Challenge to Violations

- Proof from the Department of Finance that the building in question is not a covered building in question is not a “covered building” as defined by section 28-308.1 of the Administrative Code
- Proof of early compliance with the filing requirement pursuant to section 28-308.7 of the Administrative Code
- **Proof that the building is a new building(NB) with a first temporary certificate of occupancy less than ten year old at the time the building was due to comply**
- Proof that the application to defer filing an EER was approved
- Proof that the owner was granted an extension of time to file the report

NOTE:

Failure to upload the required documents through the online Energy Audit Template Tool is not an acceptable reason to challenge the violation!

What is coming up on the horizon?

Looking forward to:

- Functional performance test forms for major equipment
- Prescribed Table of Contents for Retro-Commissioning report
- Revised format for retro-commissioning tool
- Updated “LL87 FAQs” section on the DOB webpage
- Updated “How to Guide” to submit an EER for year 2020 and onwards
- Multiple Buildings on different tax blocks reporting form
- Revised “Notice of Objections” excel workbook

Rule Amendment

It is the responsibility of the consultant to provide us a list of all the facilities (submitting in 2020 and onwards) that have been completed or currently being worked on. Such a list must be submitted prior January 1st, 2020 to the department. List must include but not limited to the following information for each facility:

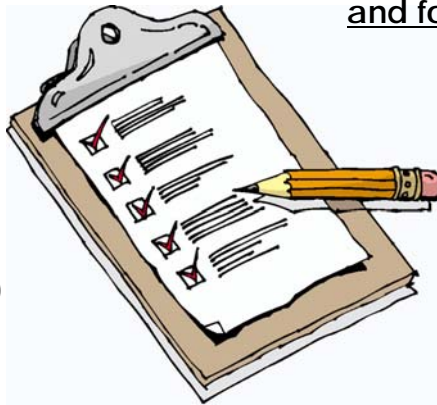
- Property address
- Property BBLs and BINs
- Date of signed contract with the building owner
- Years (data) used for utility billing analysis
- Status of EER (completed or in process)
- If completed – date of completion
- If in process - status of energy audit exercise
- If in process -status of retro-commissioning exercise

Once the information required has been received through l187@buildings.nyc.gov , we may request additional supporting information, that may include: full reports, draft reports and/or copy of signed contract. Once verified, we will make our final determination on a case by case basis, notifying the consultant if EER submission(s) under previous rule is acceptable.

Procedure to Submit an EER

Make sure to submit a complete EER:

- EERC1 Form
- EERC2 Form
- Energy Audit Template Tool Report
- Retro-Cx Spreadsheet Tool
- Final Energy Audit Report
- Final Retro-Cx Report
- DERPA Report (starting 2020)
(DEEP Energy Retrofit plan tool Analysis)



This rule shall take effect 30 days after its publication;

provided, however,

That the **amendments made by section one, two, and four through nine shall take effect on January 1, 2020**

For any additional References or Questions please contact us at:

LL87Questions@buildings.nyc.gov

Questions are answered in the order they are received