ORDINANCE AMENDMENT

**Chapter 19 – Zoning & Performance Standards**

ORDINANCE AMENDMENT: Defining, Zoning, and Regulating "Grid-Scale" and "Distributed" Power Generation Facilities

THE CITY OF ROCKLAND HEREBY ORDAINS THAT CHAPTER 19, Zoning And Planning, ARTICLE III, Zoning Ordinance, BE AMENDED AS FOLLOWS:

**Sec. 19-302 Words And Phrases Defined**

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**Community-Based Renewable Energy Project.** An electricity generating facility that generates electricity from an eligible renewable resource as defined in 35-A M.R.S. § 3210 at least 51% of which is owned by one or more qualifying local owners.

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**Distributed Power Generation Facility.** Power generation equipment which ~~has the capacity to generate electricity at the rate of [ ? 500 or 1,000 ? ] or more kilowatts AC that~~ is designed and will be operated to provide or to offset the base or peak power consumed at the site where the power generation equipment is located, or the base or peak power consumed at other sites either in Rockland or in an adjacent municipality that are under the same or affiliated ownership as the site where the power generation equipment is located.

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**Grid-Scale Power Generation Facility.** Any electrical power generation facility that is designed or will be operated to sell either base load or the peak demand electricity generated under one or more power purchase agreement(s) or other contractual arrangements for consumption by others via the local utility and/or the ISO New England, Inc.-managed transmission and distribution systems, not including a Distributed Power Generation Facility.

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**Quasi-Public Uses.** Those essential public services, such as, but not limited to, water, electricity, telephone, natural gas, and transportation, whether publicly or privately owned, which are regulated by the Maine Public Utilities Board, the Maine Department of Transportation, or Federal Communications Board, except Grid-Scale and Distributed Power Generation Facilities.

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**Sec. 19-304 Zone Regulations**

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**17. Industrial Zone "I" Regulations**

A. Purpose.

The purpose of the Industrial Zone is to permit a variety of industrial developments that are compatible with other residential and non-residential uses in neighboring areas of the City and to permit more than principal use or structure on any lot in the Industrial Zone, notwithstanding the definition of a lot as set forth in Section 19-302.

B. Use Regulations.

In an Industrial Zone "I" no building or land shall be used, and no buildings shall hereafter be erected or structurally altered, unless otherwise provided for in this Article.

(1) Permitted Uses

(a) Automobile body shops;

(b) Banks;

(c) Community and civic buildings and uses for philanthropic reasons;

(d) Construction services;

(e) Distribution businesses;

(f) Living quarters used by watchmen or custodians for protection within the zone;

(g) Manufacturing, compounding, processing, packing, treatment, or warehousing of goods and products provided such manufacture, compounding, processing, packing, treatment, or warehousing of goods and products, meet the standards of performance herein stated, except as prohibited by Section 19-304-16(B)(2) and 19-304-17(B)(2) hereof;

(h) Offices accessory to an allowed industrial use or directly or indirectly connected with the manufacture or marketing of products which are created or traded in the zone;

(i) Quasi-public uses;

(j) Restaurants, accessory to and located in a structure housing an allowed use, provided that there shall be no drive-up windows or drive-throughs;

(k) Restaurant, take out only, provided that there shall be no drive-up windows or drive throughs;

(l) Research and development facilities;

(m) Retail trade accessory to an allowed industrial use and restricted to those products manufactured on-site;

(n) Storage of boats in the traditional "winter cover" manner in ground cradles and

structures for the storage of incidentals such as riggings, masts, stays, spars, rope, line and sails;

(o) Storage buildings, compartmentalized with individual cubicles less than four thousand (4,000) cubic feet per cubicle;

(p) Transportation facilities;

(q) Wholesale business, any generally recognized;

(r) Accessory uses; and more than one permitted principal use or structure on any lot in the Industrial Zone, notwithstanding the definition of a lot as set forth in Section 19-302. The provisions of Chapter 19, § 19-308, subparagraph 5B(2) allowing the separate sale of principal structures without each lot conforming to frontage or dimension requirements are not applicable under this subsection.

(2) Conditional Uses.

The following uses are permissible with the approval of the Planning Board under the provisions of the Site Plan Review Ordinance (Chapter 16, Article II), regardless of whether or not a structure is used. In granting, denying, and/or imposing conditions, the Planning Board shall undertake a review, applying the process and standards outlined in Chapter 16, Sections 16-201 through 16-206 for site plan review and shall take into consideration the following factors: location, character and natural features of the site and adjoining property; fencing and screening; landscaping, topography and natural drainage; traffic hazards, vehicular access, circulation and parking; pedestrian circulation; signage, and lighting; availability of necessary public services; and compliance with applicable requirements of all City Ordinances, including the Performance Standards of Section 19-316.

(a) Grid-Scale Power Generation Facilities, fueled other than by uranium, enriched uranium, plutonium, solid waste, construction and demolition debris, or treated or engineered wood products, and having a setback of at least 200 feet from any property line shared with a lot on which a residential or mixed-use structure is located.

(3~~2~~) Prohibited Uses.

The following uses shall be prohibited:

(a) Any use which is annoying, dangerous, detrimental, injurious, obnoxious, or unsightly to the comfort, health, or property of individuals, or of the public, be reason of dust, fumes, gas, noise, odor, smoke, vapor, or vibration;

(b) Any use prohibited in Section 19-304-16-B-(2).

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**Sec. 19-309 Special Use Classes~~Exceptions and Exemptions~~.**

1. Special Classes. No building may be erected, altered, or used, and no land may be used, for any of the following special use classes in the Residential A and AA zones. In other zones, the Planning Board, applying the procedures and standards set forth in Chapter 16, Article II, may approve such use in any zone other than Residential A or AA zones, upon application, notice, and public hearing, and upon a determination that the use will not be detrimental or injurious to the neighborhood, and that there will be provided fencing and screening adequate to provide visual and auditory barriers from other properties and public rights of way, and that the applicant has demonstrated compliance with all other applicable City ordinances. All owners of property located within 300 feet of the lot lines of the subject parcel shall be notified of the Special Class application, in writing and at least seven days prior to the public hearing, and shall be provided an opportunity to be heard at such hearing.

A. Cemetery;

B. Municipal use (not otherwise provided for);

C. Public utility use (other than as provided by Section 19-304(3)(B));

D. Stables, public; saddle horses for hire;

E. Transformer stations;

F. Wind power generation equipment;

G. Temporary Buildings that house a use incidental to and reasonably required by an occupant of residential property on the same parcel for a non-commercial purpose (other than the storage or repair of a recreational or fishing vessel, or fishing equipment). Such temporary buildings shall be removed within one (1) year at the owner's expense, unless the permit therefor shall have been extended by the Board for not more than one year. Applications for temporary building permits must be accompanied by a bond, bill of sale, or other instrument acceptable to the City Manager to guaranty the removal and disposal of the building.

H. Distributed Power Generation Facilities having a capacity to generate electricity at the rate of 500 or more kilowatts AC. Distributed Power Generation Facilities having a capacity of less than 500 kilowatts also may be sited in any zone other than the Residential A or AA zones, but shall not require Planning Board approval. No Distributed Power Generation Facility may be fueled by uranium, enriched uranium, plutonium, solid waste, construction and demolition debris, or treated or engineered wood products. When sited in a residential, rural residential, or transitional business zone or in the Downtown Zone, a Distributed Power Generation Facility that is not a Community-Based Renewable Energy Project must be located either on the same lot as the use to be served by the electricity supplied by the Facility or on an adjacent lot.

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**Sec. 19-316 Performance Standards**

**A. Dust, Fumes, Vapor, and Gases.**

(1) General Provisions. Emission of dust, fly ash, fumes, vapors, smoke, or other particulate matter or gases and chemicals which could damage human health, animals, vegetation, or property, or which could soil or stain persons or property, at any point beyond the lot line shall be prohibited. All such activities shall also comply with applicable Federal and State regulations.

(2) Air Pollution From Power Generation Facilities. The Planning Board or other applicable permitting authority shall condition the establishment of any new power generation facility that requires either a state or federal air emissions license or permit upon (A) the applicant's receipt of such license(s) or permit(s), and (B) the applicant's demonstration that the facility shall comply with the applicable emissions limitation:

(i) Distributed Power Generation Facilities serving one or more existing commercial, industrial, institutional, municipal, and/or residential facilities: no increase in point source discharges of air pollutants regulated under the facility's air emissions license(s) and permit(s) (the "regulated air pollutants") in Rockland;

(ii) Distributed Power Generation Facilities serving one or more new or substantially expanded commercial, industrial, institutional, municipal, and/or residential facilities: a net reduction of total point source discharges of regulated air pollutants by at least 10% of the air pollutants that would be discharged to provide such facility(ies) with electricity distributed from the grid and on-site thermal energy in the absence of the Distributed Power Generation Facility;

(iii) Grid-Scale Power Generation Facilities: a net reduction of total point source discharges of regulated air pollutants by at least 25%, achieved either by replacing existing air pollution emissions in Rockland and adjacent municipalities or by enhanced efficiency measures at one or more existing facilities in Rockland or adjacent municipalities.

For the purposes of measuring emissions for compliance with this subparagraph 2, emissions shall be calculated and modeled as the sum of all annual emissions for all regulated parameters currently emitted by existing sources as described above, compared to the sum of the annual emissions projected for the proposed power generation system or facility. Emissions calculations for power purchased over the grid shall be based on the current emissions profile for Standard Offer power, as approved by the Maine Public Utilities Commission and in effect at the time the application is found to be complete.

Values for $NO_x$. $SO_x$, CO, $CO_2$, and PM and any other air emissions parameters regulated in air emissions licenses for the existing facility(ies) being offset, or of the proposed new power generation system or facility, shall be included in the analysis. The applicant shall submit data for three years under existing conditions, and the municipal review authority may designate the

reference year for permitting purposes. Where air emissions data is not available for existing systems, fuel consumption data utilizing fuel characteristic data (HHV, ash content, etc.) acceptable to the Code Enforcement Officer may be utilized to calculate emissions assuming a system efficiency of not less than 80%. **UNCLEAR:** When commercial or residential areas are impacted **[by what, to what extent?]**, where no emissions data exists, industry-accepted assumptions and benchmark data will be used to estimate emissions levels off-set by the proposed facility.

The Code Enforcement Officer shall conduct periodic inspections after issuing a certificate of occupancy or otherwise require the facility's operator to demonstrate that the applicable air pollutants discharge limitation is achieved and maintained, and may revoke said certificate of occupancy following notice and the operator's failure to cure. The facility's operator shall, within three days, report to the Code Enforcement Officer the occurrence of any air emissions license exceedance, and of any notice of violation issued regarding the operation of the Grid-Scale Power Generation Facility.

(3) Cooling Process Water Vapor. The Planning Board or other applicable permitting authority shall condition the site plan approval and/or building permit, as may be applicable, for the operation of any cooling tower or other mechanism utilized to cool water utilized in any power generation or other production facility by exposing such water to the ambient air or by another open cooling process that causes the emission of water vapor upon the applicant's demonstration that:

(a) Such cooling process employs best-available control technologies to eliminate or reduce such water vapor emissions. Such technologies must, at a minimum, preclude the emission of water vapor and precipitation beyond the facility's boundary line in a manner or amount that constitutes a public or private nuisance;

(b) The cooling tower is equipped with efficient drift eliminators that achieve drift reduction to a maximum of 0.002% of the recirculated water volume for counterflow towers and 0.005% of the recirculated water flow for cross-flow towers;

(c) The cooling tower is equipped with conductivity probe(s) to automatically determine the blow-down frequency, and flow meter to measure and totalize flow;

(d) The cooling tower shall contain a side stream filtration system or other technologies to remove solids while minimizing tower water loss;

(e) The cooling tower shall incorporate biological and pH control measures that automatically treat the tower water when the tower is in operation;

(f) The facility has adopted an inspection and maintenance program for the cooling process facility, including periodic disinfection of areas where pooling may occur; and

(g) Open-system cooling towers having a capacity of under 500 tons shall be set back at

least 75 feet from the property line; cooling towers having a capacity of 500 or more tons shall be set back 200 feet from the property line;

Applicant shall submit a dispersion model of the anticipated water plume with its application.

(4) Fugitive Emissions; Gas Piping Safety. The Planning Board or other applicable permitting authority shall require the applicant for site plan approval and/or building permit, as may be applicable, for a power generation facility that is proposed to be fueled by natural gas, propane, or other gaseous fuel source, to demonstrate that the facility has made provisions for minimizing, to the greatest extent that is reasonably practicable, the risk that any structure, infrastructure, storage tank, equipment, or process at the facility will leak, emit, discharge, or otherwise allow to escape any natural gas, propane, or other gaseous fuel into the air, whether internally or externally to the facility. Such facility shall comply with the following codes and standards in effect as of April 11, 2016, or as thereafter amended:

(a) National Fire Protection Association ("NFPA") 54 (National Fuel Gas Code);

(b) NFPA 52 (Vehicular Gaseous Fuel Systems Code);

(c) NFPA 56 (Standard for Fire and Explosion Prevention);

(d) NFPA 56PS (Standard for Fire and Explosion Prevention During Cleaning and Purging of Flammable Gas Piping Systems);;

(e) NFPA 85 (Boiler and Combustion Systems Hazards Code);

(f) NFPA 86 (Standards for Ovens and Furnaces)

(g) American National Standards Institute ("ANSI") Z223.1 (National Fuel Gas Code);

(h) ANSI 380.1 (Guide for Gas Transmission and Distribution Piping Systems);

(i) Advanced Systems Management Interface ("AMSE") B31.3 (Process Piping Standards);

(j) ASME B31.8 (Gas Transmission and Distribution Piping Systems Code);

(k) Title 32, Maine Revised Statutes ("M.R.S.") Ch. 130 (Propane and Natural Gas Act);

(l) 32 M.R.S. Ch. 139 (Maine Fuel Board);

(m) 02-658 Code of Maine Regulations (Maine Fuel Board Rules);

(n) 35-A M.R.S. Ch. 45 (Natural Gas Pipeline Utilities); and

(o) 35-A M.R.S. Ch. 47 (Gas Utilities).

The facility's operator shall hire a Professional Engineer to inspect and approve the contractors installation and ensure code compliance. Fuel gas supply trains [ ?? clarify ?? ] shall be monitored with combustible gas monitors with remoting alarming back to the facility. The combustible gas monitors must be inspected and tested on a monthly basis as part of a preventive maintenance schedule and program.

The facility operator shall strictly adhere to the above codes and standards pertaining to operations, maintenance, and testing on an annual basis. Such maintenance procedures, inspections, and testing shall be properly documented with formal procedures, test sheets with sign-offs, and inspections by the local authority. The annual testing shall include the following tests at a minimum:

(i) Verification of the operation of the combustible gas monitoring system;

(ii) Pressure-testing of all natural gas or propane supply piping downstream of the gas utility demarcation point to the facility. Pressure tests shall comply with NFPA 54 or 56, based on system pressure. The pressure test shall be witnessed by the local authority and signed off. The test report shall be submitted to the City within 5 days of completing the test.

The Code Enforcement Officer shall conduct periodic inspections after issuing a certificate of occupancy or otherwise require the facility's operator to demonstrate that the applicable gas piping safety provisions are complied with, and may revoke said certificate of occupancy following notice and the operator's failure to cure. The facility's operator shall, within three days, report to the Code Enforcement Officer any fugitive emissions discharge.

**B. Odors.**

A. No land use or establishment shall be permitted to produce offensive or harmful odors perceptible beyond their lot lines, measured either at ground level of habitable elevation. For purposes of this section, an "offensive odor" is defined as the minimum concentration in air of a gas, vapor, or particulate matter that can be detected by the olfactory systems of the Odor Committee per the Rockland City Code, Chapter 10, Article III.

B. Any proposed use which may emit odoriferous substances must include detailed plans to mitigate such to the Planning Board before the appropriate permit is granted

**C. Lighting.**

Statement of Purpose: Ensure appropriate outdoor lighting by addressing the issues of safety, efficiency, the environment and aesthetics.

(1) Definitions: For the purposes of this Section, terms used shall be defined as follows:

(a) Authority having jurisdiction – The Planning Board or Code Enforcement Officer.

(b) Direct Light – Light emitted directly from the lamp, off the reflector or reflector diffuser, through the refractor or diffuser lens, or from a luminaire.

(c) Fixture – The assembly that houses the lamp(s), including but not limited to housing, mounting bracket or pole socket, lamp holder, ballast, reflector or mirror, and/or a refractor or lens.

(d) Flood or Spot Luminaire – Any luminaire that incorporates a reflector or a refractor to concentrate the light output into a directed beam.

(e) Indirect Lighting – Direct light that has been reflected or scattered off other surfaces.

(f) Luminaire Height – The vertical distance from the ground directly below the centerline of the luminaire to the lowest direct-light-emitting part of the luminaire.

(g) Lamp – The component of a luminaire that produces light.

(h) Lumen – A unit of luminous flux. One foot-candle is equal to one lumen per square foot. For the purposes of this section, the lumen-output values shall be the initial lumen output ratings of a lamp.

(i) Luminaire – A complete lighting system, including lamp(s) and/or fixture(s).

(j) Outdoor Lighting – Nighttime illumination of an outside area or object by any man-made device located outdoors that produces light by any means.

(k) Temporary Outdoor Lighting – Outdoor lighting in place for less than fourteen (14) days, with at least eighty (80) days passing before being used again.

(2) Regulations: Unless determined to be a safety hazard or in violation of any state or federal law, all outdoor lighting installed in the City of Rockland shall comply with this section, except for the following: lighting installed and maintained for public safety by Municipal, State or Federal government; approved signs; external illumination of flags; approved lighting for athletic fields; temporary outdoor lighting; holiday lighting; luminaires with a lamp or lamps rated at a total of 2,000 lumens or less.

(a) No luminaire shall produce a stray, dazzling light or reflection onto neighboring residential properties~~,~~ or onto any public road so as to impair the vision of any driver.

(b) Luminaires shall be shielded or hooded so that the lighting elements are not exposed to normal view by motorists, pedestrians, or from adjacent buildings. No luminaire shall emit any direct light above ~~a~~ its horizontal plane. The Planning Board may grant exceptions for lights that are aesthetically consistent with decorative streetlights and located on parcels adjacent to such streetlights.

(c) No flood or spot luminaire of any lumen output rating shall be aimed, directed or focused toward any adjacent or nearby residential parcel.

(d) Rather than leaving security lights on, the use of motion sensors is encouraged.

(e) Direct or indirect illumination shall not exceed one-half (1/2) foot-candles upon abutting residential properties.

(f) Unless otherwise approved by the authority having jurisdiction, luminaire height, including the base, shall not exceed twenty-five (25) feet in non-residential areas and fourteen (14) feet when adjacent to residential zones or neighborhoods. Exceptions may be granted only when it can be demonstrated that the intent of this section will still be substantially met.

(3) Existing Non-Conforming Luminaires:

(a) The continued use of non-conforming luminaires legally existing as of the effective date of this section shall be permitted unless determined to be a safety hazard or in violation of any State or Federal laws.

(b) Non-conforming luminaires replaced or moved after the effective date of this section shall comply with the provisions of this section. Eff: 8/9/06

**D. Noise and Vibration.**

(1) Excessive noise and/or vibration at unreasonable hours shall be muffled so as not to be objectionable due to intermittence, beat frequency, shrillness, or volume.

(2) No use in any zone may generate any ground transmitted vibration that is perceptible to the human sense of touch measured at the lot line of the complainant.

**[ The Planning Board and Energy Advisory Committee are considering whether to recommend adoption of a new, frequency-based form of noise measurement, and related maximum noise levels, either for all zones (Option A, below), or only for Grid-Scale Power Generation Facilities (Option B, below). ]**

**Option A – New Noise Measurement & Maximums:**

(3) The maximum permissible sound pressure level of any continuous, regular, or frequent source of sound produced by an activity shall be as established in Table 19-309(D) – Noise Standards, below. For these purposes, the following zones of the City of Rockland shall be categorized as follows:

| | |
|---|---|
| Residential: | Residential AA, Residential A, Residential B, Rural Residential 2, Elderly Residential B-1, Resort, Woodland and Wildlife G, Recreational, Shoreland, and Chickawaukie Watershed; |
| Mixed-Use: | Rural Residential 1, Transitional Business 1, Transitional Business 2, Transitional Business 3, Transitional Business 4, Neighborhood Commercial |
| Commercial: | Plaza Commercial, Downtown, Commercial 1, |

Commercial 2, and Commercial 3;

Industrial: Industrial, Business Park, and all Waterfront Subzones.

Table 19-309(D) – Noise Standards

| Octave Band Center Frequency of Measurement | Residential | | Mixed-Use | | Commercial | Industrial |
|---|---|---|---|---|---|---|
| Hz | Day[1] | Night[2] | Day | Night | Anytime | Anytime |
| 31.5 | 76 dBa | 68 dBa | 79 dBa | 72 dBa | 79 dBa | 83 dBa |
| 63 | 75 | 67 | 78 | 71 | 78 | 82 |
| 125 | 69 | 61 | 73 | 65 | 73 | 77 |
| 250 | 62 | 52 | 68 | 57 | 68 | 73 |
| 500 | 56 | 46 | 62 | 51 | 62 | 67 |
| 1000 | 50 | 40 | 56 | 45 | 56 | 61 |
| 2000 | 45 | 33 | 51 | 39 | 51 | 57 |
| 4000 | 40 | 28 | 47 | 34 | 47 | 53 |
| 8000 | 38 | 26 | 44 | 32 | 44 | 50 |
| Single Number Equivalent | 60 dBA | 50 dBA | 65 dBA | 55 dBA | 65 dBA | 70 dBA |

[1] "Day" is between 7:00 a.m. and 9:00 p.m.
[2] "Night" is between 9:00 p.m. and 7:00

**Option B – Revised Current Noise Measurement & Maximums:**

(3) The maximum permissible sound pressure level of any continuous, regular, or frequent source of sound produced by an activity shall be as established by the time period and type of zone listed below for all uses except Grid-Scale Power Generation Facilities:

| **Zone** | **7 a.m. - 9 p.m.** | **9 p.m. – 7 a.m.** |
|---|---|---|
| Industrial, Business Park and WF1 thru WF5 | 75~~85~~ dBA~~decibels~~ | 60 dBA~~decibels~~ |

| | | |
|---|---|---|
| Rural Residential 1 and 2, Commercial 1, Commercial 2, Commercial 3, Plaza Commercial, Downtown | 75 dBA~~decibels~~ | 55 dBA~~decibels~~ |
| Transitional Business 1, Transitional Business 2 | 65 dBA~~decibels~~ | 50 dBA~~decibels~~ |
| Transitional Business 3, Transitional Business 4, Neighborhood Commercial, Resort, Residential AA, A, and B Zones | 55 dBA~~decibels~~ | 45 dBA~~decibels~~ |

Noise from Grid-Scale Power Generation Facilities shall be measured utilizing the Octave Band Center Frequency of Measurement, as follows:

| Octave Band Center Frequency of Measurement | Grid-Scale Power Generation Facilities | |
|---|---|---|
| Hz | Day | Anytime |
| 31.5 | 76 dBa | 83 dBa |
| 63 | 75 dBa | 82 dBa |
| 125 | 69 dBa | 77 dBa |
| 250 | 62 dBa | 73 dBa |
| 500 | 56 dBa | 67 dBa |
| 1000 | 50 dBa | 61 dBa |
| 2000 | 45 dBa | 57 dBa |
| 4000 | 40 dBa | 53 dBa |
| 8000 | 38 dBa | 50 dBa |
| Singe Number Equivalent | 60 dBA | 70 dBA |

Sound pressure levels shall be measured on a sound level meter at all lot lines of the site, at a height of at least four (4) feet above the ground surface. Noise shall be measured with a sound level meter and frequency weighing network meeting the standards prescribed by the American National Standards Institute. The levels specified may be exceeded by the (10) decibels (dBs) for a single period, no longer than fifteen (15) minutes, in any one (1) day.

(4) Where the emitting and receiving premises are in different zones, the limits governing the stricter zone shall apply to any regulated noise or vibration entering that zone.

(5) Noise or vibration created by construction and maintenance activities between 7 a.m. and 9 p.m. are exempt from the requirements of paragraphs (2) and (3) above. Construction activities on a site abutting any residential use between the hours of 9 p.m. of one day and 7 a.m. of the following day are prohibited, unless exempted pursuant to Subparagraph (7)~~shall abide by the maximum sound levels allowed for the Commercial 1 Zone~~.

(6) These noise and vibration regulations are enforceable by law enforcement officers and by the Code Enforcement Officer, who may measure noise or vibration levels and who shall report documented violations to the police. For the purposes of enforcement, sounds exceeding the limits established in this section shall be deemed to constitute "loud and unreasonable noise" under Title 17-A M.R.S. § 501-A.

(7) The following uses and activities shall also be exempt from paragraphs (2) and (3) above:

(a) the noise or vibration of safety signals, warning devices, emergency pressure relief valves, and any other emergency device;

(b) normal traffic noise or vibration on public streets or noise or vibration created by airplanes, railroads, and farm or timber harvesting machinery;

(c) noise or vibration created by refuse or solid waste collection, provided that the activity is conducted between 6 a.m. and 7 p.m.;

(d) emergency construction or repair work by public utilities, at any hour;

(e) noise or vibration created by any recreational activities which are permitted by law and for which a license or permit has been granted by the City including, but not limited to, parades, sporting events, concerts and firework displays;

(f) vehicle and/or equipment involving municipal services at any hour;

(g) road construction, reconstruction, and/or paving activities by or on behalf of the City of Rockland or the State of Maine, or as part of road restoration work following emergency construction or repair work by or on behalf of a public utility;

(h~~g~~) noise and vibration created by ordinary residential maintenance activities such as lawn mowing or snow throwing between the hours of 6 a.m. and 9 p.m.

**E. Refuse Disposal.**

All solid and liquid wastes shall be disposed of on a timely basis and in a manner provided for by Federal, State, and local regulation. All materials stored outdoors shall be stored

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in such a manner as to prevent the breeding and harboring of insects, rats, animals, or other vermin. All such wastes shall be stored so as to prevent access to or disposal by stray animals. This shall be accomplished by enclosures in containers, raising material above ground, separation of material, prevention of stagnant water, extermination procedures, or other means. Outdoor storage containers and areas shall be screened from public view. Walls, fencing, screening dense plant material, or a combination of material can be used to achieve this intent.

**F. Water Quantity, Quality, and Discharge ~~Impacts~~.**

(1) Water Quantity: New power generation and other industrial land uses, and new processes serving existing industrial uses, that are permitted or commenced on or after April 11, 2016, shall comply with the following standards affecting the quantity of water consumed at such power generation or other industrial facility:

(a) Cooling, steam generation, hot water distribution, and other processes or systems that utilize unprocessed water for heat transfer or other mechanical, industrial, or production purposes shall be designed and engineered to recycle or reuse at least 80% of the unprocessed source water drawn from the water company, well, aquifer, or other potable water supply source serving the facility. No such minimum reuse or recycling requirement shall be imposed where the source water is processed municipal or other wastewater;

(b) No single facility may draw or consume more than two hundred, fifty thousand (250,000) ~~two million, three hundred thousand (2,300,000)~~ gallons of unprocessed source water per day; and

(c) To assure the maintenance of sufficient flows for fire suppression and other uses throughout the year, including during periods of drought or reduced water supply, the operator of a facility located in or adjacent to the Rockland Industrial Park shall either (i) have demonstrated to the satisfaction of the permitting authority that there will be constant available supply and flows for such other uses, or (ii) provided for sufficient on-site water storage to meet the facility's requirements without interrupting the water supply available for such other uses.

Operators of such facilities shall monitor, measure, and record their water usage, recycling, and discharge levels and, at least monthly, report the same to the Code Enforcement Officer.

(2) Water Quality – Materials Storage:

(a~~1~~) No activity shall locate, store, discharge, or permit the discharge of any treated, untreated, or inadequately treated liquid, gaseous, or solid materials of such nature, quality, obnoxiousness, toxicity, or temperature that runoff, seep, percolate, or wash into surface or ground waters so as to contaminate, pollute, or harm such waters or use nuisances, such as objectionable shore deposits, floating or submerged debris, oil, scum, color, odor, taste, or unsightliness, or be harmful to human, animal, plant, or aquatic life.

(b~~2~~) All above ground storage facilities fuel, chemical or industrial wastes, and biodegradable raw materials (excluding non-commercial compost heaps), shall be completely enclosed by an impervious dike, which shall be high enough to contain the total volume of liquid kept within the storage area, plus the rain falling into this storage area during a twenty-five (25) year storm, so that such liquid shall not be able to spill or seep onto the ground surrounding the paved storage area. Storage tanks for home heating oil, and diesel fuel, not exceeding two hundred and seventy-five (275) gallons in size, are exempt from this requirement in situations where neither a high seasonal water table (within fifteen (15) inches of the surface) nor rapidly permeable sandy soils are involved.

(c~~3~~) All below ground tanks must meet the standards of the Maine Department of Environmental Protection.

(3) Water Discharge: Water and wastewater discharges into any sanitary sewer must comply with the applicable national and state pretreatment standards, local discharge restrictions, and other limitations set forth in Chapter 14, Article IV. No person or entity may discharge any pollutant to any storm sewer without first obtaining a valid National Pollutant Discharge Elimination System ("NPDES") permit from the Environmental Protection Agency or Department of Environmental Protection for such discharge, and no such discharges may exceed the applicable limit(s) imposed by such NPDES permit.

**G. Landscaping.**

(1) General Landscape Standards

(a) Purpose. The purpose of the following landscape standards is to protect the public welfare by assuring that:

i. the landscape shall be preserved in its natural state insofar as practical, by minimizing tree removal and grade changes;

ii. landscaping shall be designed to soften, screen, or enhance the physical design of structures and parking areas to avoid the encroachment of the proposed use on abutting land uses;

iii. plant materials are appropriate to Maine climatic conditions and the functions of the areas in which they are used;

iv. plant materials are of a size and condition that will allow them to establish themselves, mature, and survive in a healthy and attractive manner;

v. landscaping elements and the areas in which they are established are maintained in a clean, healthy, and attractive condition; and

vi. landscaping is not placed in such a way as to pose a safety hazard and plantings are designed so as not to interfere with sight distance along a right-of-way and traffic safety.

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(2) Types and Uses of Landscape Elements

For the purpose of this ordinance:

(a) a canopy tree is a deciduous tree that reaches at least thirty-five (35) feet or more in height at maturity. Canopy trees are used to help create identity and establish the character of an area, to help define large spaces, and to provide shade in the hotter months of the year;

(b) an evergreen tree is a tree that reaches at least thirty-five (35) feet or more in height at maturity. Evergreen trees are used to create year-round interest with their dominant forms and color, to screen or direct views, act as windbreaks, and to provide a backdrop for other elements of a site. Where evergreen trees are installed in buffers, the installed heights should vary at a minimum from four (4) to twelve (12) feet to add greater variety and landscape interest;

(c) an understory tree reaches ten (10) feet to thirty-five (35) feet at maturity. Understory trees are used to provide eye-level landscaping features that help to scale down larger architectural and landscape elements, to define minor spaces, and to provide a variety of form, color, and accents to a site;

(d) shrubs have mature heights of two (2) to ten (10) feet. They are used to form physical and visual barriers, add seasonal interest and color, and help define the scale and location of buildings;

(e) miscellaneous plantings include ground covers, vines, perennials, annuals, bulbs, and other herbaceous material. They are used to add seasonal color, form patterns on the ground plane, and add to the humanizing of the site.

(3) Minimum Size Standards. The plant materials defined in paragraph (2) shall meeting the following minimum size standards at time of installation, with calipers measured at diameter at four (4) feet above ground.

| | |
|---|---|
| Canopy trees | 1½" caliper |
| Evergreen trees | 4' height |
| Understory trees | 1½" caliper |
| Shrubs | 18" - 24" height |
| Ground covers | 2 year old plants |

(4) Plant Selection. Plant materials shall be selected for appearance, durability, and tolerance to air pollution; native trees and shrubs shall be planted whenever possible. All plantings required under this section shall be of a type and species appropriate for soil types and climatic conditions in Rockland.

(5) Amenities and Stone Walls. Pools, sculptures, benches, and walkways may be used to complement plant materials. In cases where a traditional stone wall exists, it should be conserved or rebuilt in another location.

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(6) Disturbed areas. Where buffers are not required, all disturbed areas not to be used as parking or building footprint shall be planted to lawn or left in their natural vegetated state as a minimum requirement.

(7) Maximum Slope. A maximum maintainable slope of three horizontal to one (3:1) vertical should be established for both the front and back of berms. Where room permits, a flat top area, four (4) feet in width should be provided.

(8) Fencing. Fencing materials should complement the architectural style of the buildings of the lot upon which they are erected. Fences shall not be used in locations that will obscure views of the water from public streets.

(9) Maintenance.

(a) All plantings and buffer yards shall be maintained in a good and healthy condition. The Maine Erosion and Sedimentation Control Handbook for Construction - Vegetative Measures, developed by the Maine Department of Environmental Protection shall be used as a guide. Fencing and berms shall be durable and properly maintained at all times by the owner. All landscaping elements shall be so located with respect to property boundaries to allow access for maintenance on both sides without intruding upon abutting properties.

(b) Plants required or recommended by this subsection or plants that are part of an approved Plan that die shall be replaced within one (1) growing season.

(10) Parking Areas. Landscaping shall be designed to accommodate attractive and safe pedestrian circulation patterns, and allow good visibility of oncoming pedestrians and vehicles throughout the parking area.

(a) Landscaping Within the Parking Areas.

Landscaping areas shall be provided within parking areas to provide shade and visual relief from broad expanses of pavement and to channelize and separate areas for pedestrian and vehicular circulation.

i. In addition to required perimeter landscaping, at least five (5) percent of the gross area of all parking lots with twelve (12) or more parking spaces shall be landscaped. Existing parking lots shall be exempt from this requirement although landscaping should be provided to the greatest extent possible.

ii. The recommended landscaping within the parking area should include a minimum of two (2) canopy trees, one (1) understory tree, and five (5) shrubs for every twelve (12) parking spaces or fraction thereof. For every mature canopy tree that exists on the proposed site of a parking lot prior to the parking lot's development and that is retained and integrated into the parking lot's design, the number of new canopy or understory trees may be reduced by two (2). If any such retained tree dies within five (5) years of the date of the building use permit issued

for the development, it shall be replaced with two (2) similar trees meeting the standards of this ordinance.

iii. The landscaping shall be:

(i) in planting areas at least ten (10) feet wide to accommodate canopy and/or understory trees. Planting areas should be located to demarcate the ends of parking rows, avoiding long rows of parked cars, and to channel pedestrian circulation. Planting areas should be edged with a six (6) inch continuous vertical curb or wheel stops to prevent vehicles from overhanging into planting areas and designed to allow efficient snow removal. Planting areas shall be oriented to maximize pedestrian safety and convenience;

(ii) located to break up parking areas into smaller areas of no more than fifty (50) spaces each;

(iii) designed to accommodate snow plowing and storage without damage to the plants and trees.

iv. Landscaping shall be provided except in the case of automobile drop-off loading area, or a vehicular entry in to a building, in order to enhance the appearance of the site and avoid impact to occupants from exhaust fumes and noise. The landscaped area should be no less than fifteen (15) feet deep from all buildings, except in commercial and industrial zones where the depth need be no more than four (4) feet, provided that the building footprint is less than twenty-five hundred (2,500) square feet. The area shall be landscaped with shrubs, groundcover, and trees where appropriate, and may include a walkway if the area if fifteen (15) feet deep of more.

v. To accommodate circumstances where the recommended landscaping may not fit site conditions, an applicant may submit an alternative plan for the siting of landscaped areas provided that an equal or greater amount of landscaped area is provided than would be otherwise required.

(b) Perimeter Landscaping.

Parking lots shall be landscaped adjacent to other uses and rights-of-way with trees, shrubs, fencing, and earth berming to avoid the impact of glare, headlights, parking lot lights, noise, and dust and to protect and enhance visual character as follows:

i. Abutting a public right-of-way:

(i) Where a parking area that includes six (6) or more parking spaces abuts a public right-of-way, a continuous landscaped strip shall be established between the right-of-way boundary line and the parking area and shall be maintained in good condition. It may be interrupted only by a driveway meeting the standards of this ordinance. In areas other than the Downtown, Commercial 3, Plaza Commercial, Business Park, and Rural Residential 1 zones, when the parking area abuts an arterial or collector street, the perimeter planting shall be at least ten (10) feet wide and should be planted with at least three (3) canopy trees, four (4) understory

trees, thirty (30) shrubs, and six (6) evergreen trees per one hundred (100) linear feet of street frontage or fraction thereof exclusive of the width of the driveway. When it abuts any other right-of-way, it shall be at least six (6) feet wide and should be planted with at least two (2) canopy trees, two (2) understory trees, twenty (20) shrubs, and four (4) evergreen trees per one hundred (100) linear feet of street frontage exclusive of the width of the driveway. The number of trees for frontages less than one hundred (100) feet shall be in proportion to the above specifications. In the Plaza Commercial, Business Park, and Rural Residential 1 zones the landscaped strip shall be at least ten (10) feet wide and should be planted with at least three (3) canopy trees, six (6) evergreen trees, four (4) understory trees, and thirty (30) shrubs per one hundred (100) linear feet of length exclusive of the width of the driveway. The number of trees for frontages of less than one hundred (100) feet shall be in proportion to the above specifications. The plantings shall be designed and located so as not to interfere with sight distance along the right-of-way and traffic safety.

(ii) In the Downtown Zone, the landscaped strip shall be at least six (6) feet wide and should be planted with at least three (3) canopy or evergreen trees, four (4) understory trees, and twenty (20) shrubs per one hundred (100) linear feet of street frontage exclusive of the width of the driveway. The number of trees for frontages of less than one hundred (100) feet shall be in proportion to the above specifications.

ii. Where a commercial parking facility or a parking area serving a nonresidential use abuts a residential zone or a lot wholly or partially in residential use, a continuous landscaped strip shall be established between the adjoining zone or use and the parking area at least ten (10) feet wide and shall be maintained in good condition. It may be interrupted only by a single pedestrian pathway at each abutting property line no more than five (5) feet wide. The landscape strip shall be planted with at least three (3) canopy trees, four (4) understory trees, thirty (30) shrubs and six (6) evergreen trees per one hundred (100) linear feet of frontage. The number of trees for frontage less than one hundred (100) feet shall be in proportion to the above specifications. For every mature canopy or evergreen tree existing in the area prior to construction of the parking lot and preserved within the buffer area, the required number of new trees may be reduced by two (2). If any such retained tree dies within five (5) years of the date of the building permit issued for the development, it shall be replaced with two (2) similar trees meeting the standard of this ordinance. As an alternative, a dense hedge or screen composed of at least 2/3 evergreen plantings four (4) feet or more in height at the time of planting of a type which will reach six (6) feet or more in height within five (5) years may be substituted. If the land is bermed to a height of two (2) feet or more, the height of the plantings may be adjusted.

**H. Buffering and Screening**

(1) Purpose. The following buffer standards are intended to protect the public welfare. Buffers of plantings, berms, and/or walls, fences or natural features should:

(a) separate conflicting land uses, zones or activities from one another;

(b) create visual barriers which obscure buildings, signs, headlights, glare, vehicles or other modifications of the landscape;

(c) reduce the impact of noise;

(d) reduce air pollution, wind, dust, dirt, and litter and contribute to healthy air and water quality;

(e) help prevent undesirable access to dangerous areas; and

(f) direct the eye to more attractive views in keeping with the planned character of the City.

(2) General Standards.

(a) Unless otherwise stated, buffer requirements shall apply to perimeter property lines of projects and along arterial and collector streets in the Commercial 1, Commercial 2, Commercial 3, Plaza Commercial, Industrial, Business Park, and Rural Residential 1 zones, and in master planned developments. The perimeter property lines of projects shall be considered to be the perimeter lines of:

i. business or industrial parks;

ii. master planned residential, commercial, or mixed use developments;

iii. single commercial, business, or industrial developments not associated with a subdivision or park or master planned development.

(b) Natural features shall be maintained whenever possible to meet buffer requirements. When natural features such as topography, gullies, stands of trees, shrubbery, rock outcrops, do not exist or are insufficient to provide an effective buffer, landscaped buffers shall be created. Indigenous plantings shall be used whenever possible.

(c) Although this ordinance does not prohibit landscaping within a street or street right-of-way, no part of the right-of-way shall be used to satisfy buffer requirements.

(d) Landscaping and Maintenance

See Section G, above.

(3) Multifamily and Nonresidential Uses Abutting a Residential Zone.

(a) The required side and back yards of nonresidential uses that abut properties in residential zones, or of multifamily uses that abut properties in single family residential use, shall be retained in their natural vegetated state to the maximum extent possible to provide a visual screen between uses. The buffer may be part of the setback.

(b) Where natural buffering does not exist, or is not possible to be retained, or is not

sufficient to achieve an effective, complete visual screen, the required side and back yards shall be landscaped to provide a visual screen between uses. It may be interrupted only by a single pedestrian pathway at each abutting property line no more than five (5) feet wide. In areas other than the Industrial, Downtown, Transitional Business 3, Commercial 3, Plaza Commercial, Business Park, and Rural Residential zones, the landscaped strip shall be at least ten (10) feet wide and shall be planted with at least three (3) canopy trees and twelve (12) evergreen trees, four (4) understory trees, and thirty (30) shrubs per one hundred (100) linear feet of length exclusive of the width of the pathway. The number of trees for frontages less than one hundred (100) feet shall be in proportion to the above specifications.

For uses that are subject to site plan review in the Industrial Park, the landscaped strip at sites approved or substantially reconstructed after April 11, 2016, shall be at least ten feet wide and shall be planted with at least one evergreen tree such as Norway Spruce every ten feet to create a continuous, dense screen and maintained and not pruned so as to retain such screen from the ground to the peaks of the trees.

In the Downtown Zone, the landscaped strip shall be at least six (6) feet wide and shall be planted with at least three (3) canopy evergreen trees, four (4) understory trees and fifteen (15) shrubs per one hundred (100) linear feet of length exclusive of the width of the pathway. The number of trees for frontages less than one hundred (100) feet shall be in proportion to the above specifications.

In the Transitional Business 3, Commercial 3, Plaza Commercial, Business Park, and Rural Residential zones, the landscaped strip shall be at least thirty (30) feet wide and shall be planted with at least three (3) canopy trees, twelve (12) evergreen trees, four (4) understory trees, and thirty (30) shrubs per one hundred (100) linear feet of length exclusive of the width of the pathway. The number of trees for frontages of less than one hundred (100) feet shall be in proportion with the above specifications.

For every mature canopy or evergreen tree existing prior to development and retained within the buffer area, the required number of new trees may be reduced by two (2). If any such retained tree dies within five (5) years of the date of the building permit issued for the development, it shall be replaced by two (2) similar trees meeting the standard of this ordinance.

(4) Front Yards of Multifamily and Nonresidential Uses. The required front yards of multifamily and nonresidential uses shall be maintained in a landscaped condition.

(5) Exposed Areas and Areas for Commercial Outdoor Storage. Exposed machinery installation, sand and gravel extraction operations, and areas for the storage and collection of discarded or uninspected vehicles, auto parts, metal or any other articles of salvage or refuse, shall have sufficient setbacks and screening to provide a visual buffer sufficient to minimize their adverse impact on surrounding properties. At a minimum, the screening shall include dense evergreen hedges, four (4) feet or more in height at the time of planting, of a type that shall reach six (6) feet or more in height within five (5) years. If the land is bermed to a height of two (2) feet or more, the height of plantings may be adjusted. All such plantings shall be maintained as an effective, complete visual screen. Where a potential safety hazard to children would be likely

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to arise, physical barriers sufficient to prevent small children from entering the premises shall be provided and be provided and be maintained in good condition.

(6) Areas for Outdoor Sales and Automobile Repair in the Rural Residential 1 Zone. Areas for outdoor sales and automobile repair in the Rural Residential 1 Zone shall have sufficient setbacks and screening to provide a visual buffer sufficient to minimize their adverse impact on surrounding properties. At a minimum, the screening shall include a dense evergreen hedge, four (4) feet or more in height at the time of planting, of a type that will reach six (6) feet or more in height within five (5) years. If the land is bermed to a height of two (2) feet or more the height of plantings may be adjusted. All such plantings shall be maintained as an effective, complete, visual screen. Where a potential safety hazard to children would be likely to arise, physical barriers sufficient to prevent small children from entering the premises shall be provided and be maintained in good condition.

**I. Storage of Materials and Machinery.**

(1) Bulk Storage; Junkyards. All outside storage areas, areas used for the storage or collection of discarded automobiles, auto parts, metals, and any other articles of salvage or refuse shall have sufficient setbacks and screening to provide a visual buffer sufficient to minimize their impact on other land uses and properties in the area. All materials stored outdoors shall be screened from public view. Walls, fencing, screening dense plant material, or a combination of material can be used to achieve this intent.

(2) Attractive Nuisances. Where a potential safety hazard to children would likely arise, physical barriers sufficient to prevent small children from entering the premises shall be provided and maintained in good condition.

(3) Fuels And Hazardous Materials. Above-ground fuel (including, without limitation, propane, liquefied natural gas, compressed gas, oil or other petroleum product, and biomass feedstock or products), hazardous materials storage areas, tanks, or other facilities serving any commercial or industrial use, and processes utilizing any hazardous materials shall be (a) adequately screened so as to prohibit public access and provide visual and safety barriers, (b) included in an emergency response plan for the facility that is reviewed and approved by the Fire Chief or his designee, and (c) subject to periodic inspection by the Fire Chief or his designee pursuant to Chapter 7, Article II or other applicable provision of law.

**J. Preservation of Water Views.**

Development in Transitional Business 2 and Transitional Business 3 zones shall preserve water views to the maximum extent feasible. In the Transitional Business 3 zone, a fifty (50) foot wide space between buildings at least every one hundred fifty (150) feet shall be provided to afford views of the waterfront from public rights-of-way.

**K. Transportation, Traffic, and Curb Cuts.**

In the Commercial 1, Commercial 2, Commercial 3, Plaza Commercial, Transitional

Business 1, Transitional Business 2, Transitional Business 3, Neighborhood Commercial, Business Park, and Industrial zones:

(1) development proposals shall include a program identifying all proposed traffic controls, parking areas, interior traffic circulation and traffic interface with public highways and pedestrian and bicycle safety.

The Program shall demonstrate that additional traffic generated by the project itself can be accommodated on existing public highways or that satisfactory improvements, if necessary, will be made at the developer's cost. The Planning Board may require a Traffic Impact Study also at the developer's expense. Where traffic studies indicate, deceleration lanes and/or turning lanes will be provided.

Development proposals shall discourage conventional strip development by the use of centers or clusters of development, shared accessways, and buffer zones.

(2) Whenever possible, development proposals shall use access from existing side streets where they abut the premises on secondary street frontage in cases where they will not create a hazardous nuisance to those sending streets. Where this access is not available, a single accessway or curb-cut should provide access to the entire parcel. All lots from the same original parcel should be accessed from this central point.

(3) On or after April 11, 2016, prior to permitting new land uses that are to utilize as fuel or for other purposes compressed natural gas ("CNG"), biomass (*e.g.*, wood chips, wood pellets, sawdust, straw, or other bulk organic matter), or municipal or other solid waste transported to the site by ten or more trucks each having a gross vehicle weight rating ("GVWR") of 60,000 lbs. or more per day, the review authority shall require the applicant to prepare and submit a traffic study acceptable to such review authority that provides for the mandatory routing of such delivery trucks via routes and at times of day that minimize their impact on neighborhoods and roads.

~~**L. Proposals of Exceptional Merit.**~~

~~The above alternative Performance Standards shall be adhered to, however, proposals of exceptional merit that meet the spirit of these standards may be accepted by the Planning Board.~~

**L. Inspection & Maintenance Programs.** Developers or Operators of Grid-Scale or Distributed Power Generation Facilities shall prepare, obtain City Rockland approval of, and comply with an Inspection & Maintenance Program for the facility. Each such program shall include, at minimum:

(1) Annual inspections, and documentation of needed and completed repairs;

(2) A maintenance schedule, identifying elements requiring routine maintenance, the maintenance to be performed, and the frequency of such maintenance activities;

(3) Noise testing prior to and at least annually after obtaining a Certificate of Occupancy for the facility, and upon request by the Code Enforcement Officer;

(4) Annual testing to assure continued compliance with federal or state air emissions license(s) or permit(s), when applicable;

(5) Cooling tower and chemical tower treatment maintenance practices; and

(6) Annual pressure testing and inspections of natural gas or propane supply piping, in the presence of the Fire Chief or his designee.

In the event of non-compliance with any required component of the Inspection & Maintenance Program, the Code Enforcement Officer shall give notice of such default and, no sooner than ten days following such notice, may revoke the operator's certificate of occupancy upon the operator's failure to cure said non-compliance.

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