AN ORDINANCE OF UPPER ALLEN TOWNSHIP, CUMBERLAND COUNTY, COMMONWEALTH OF PENNSYLVANIA, AMENDING THE CODE OF UPPER ALLEN TOWNSHIP, CHAPTER 181 (PEACE AND GOOD ORDER), ARTICLE II (NOISE DISTURBANCE), BY ADDING SECTION 181-2.9 (SPECIFIC STANDARDS FOR THE INDUSTRIAL (IND) ZONING DISTRICT) TO ESTABLISH STANDALONE ACOUSTIC AND VIBRATION REGULATIONS APPLICABLE EXCLUSIVELY TO USES WITHIN THE INDUSTRIAL DISTRICT (IND).

ORDINANCE NO. _____

WHEREAS, the Board of Commissioners of Upper Allen Township enacted a comprehensive modernization and overhaul of the Township's broad noise management regulations via Ordinance No. 831; and

WHEREAS, the Board of Commissioners recognizes that high-intensity industrial operations, technological facilities, and energy infrastructure, specifically including Data Center Uses, Data Center Accessory Uses, and Battery Energy Storage Systems (BESS), possess distinct, continuous, and low-frequency acoustic and vibration profiles requiring specialized, highly precise technical standards to prevent background noise creep and protect surrounding properties; and

WHEREAS, utilizing the reserved Section 181-2.9 to house these standalone industrial requirements provides the most logical, cohesive, and legally defensive enforcement structure within the existing Code of Ordinances.

BE IT ENACTED AND ORDAINED, by the Board of Commissioners of Upper Allen Township, Cumberland County, Pennsylvania, by authority of the same as follows:

SECTION 1. The Code of Upper Allen Township, Chapter 181 (Peace and Good Order), Article II (Noise Disturbance), as previously amended by Ordinance No. 831, is hereby **amended by adding** Section 181-2.9 to read as follows:

§ 181-2.9 Specific Standards for the Industrial (IND) Zoning District.

A. Applicability.

(1) The provisions of this section shall establish specialized sound, acoustic, and vibration standards and compliance requirements applicable exclusively to all principal, accessory, or conditional uses located, proposed, or operating within the Industrial District (IND), as defined and delineated in Chapter 245 (Zoning). These uses explicitly include, but are not limited to, Data Center Uses, Data Center Accessory Uses, and Battery Energy Storage Systems (BESS).

(2) Existing Uses. The standards of this section shall apply to any use established, constructed, or first placed into operation within the Industrial (IND) District on or after

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the effective date of this Ordinance, and to any expansion, intensification, or material modification of an existing use occurring on or after that date. A lawful use in existence and operating on the effective date of this Ordinance shall not be rendered noncompliant solely by reason of this section; nothing herein, however, limits the Township's authority to abate a use that constitutes a nuisance in fact under applicable law.

B. Standalone Authority. To the extent that any provision, metric, or standard within this § 181-2.9 conflicts with any general provision found in § 181-2.3 through § 181-2.8 of this Article, the more stringent, specialized, or technical standard contained within this section shall govern and control for all properties operating within the Industrial (IND) District.

C. Primary Sound and Acoustic Standards.

(1) All operations within the Industrial (IND) District shall comply with the absolute numeric thresholds set forth in Table 1, subject to the specialized overlay standards detailed within this subsection.

(2) All sound level meters must meet ANSI/ASA S1.4 Type 1 (Class 1) Precision specifications, and octave-band filters must meet ANSI/ASA S1.11 Class 1 specifications.

(3) All measurement procedures shall conform to the applicable provisions of ANSI/ASA S1.4, ANSI/ASA S1.11, ANSI/ASA S1.13, ANSI/ASA S12.9, and their successor standards accepted by the Township.

(4) For purposes of compliance with this Section, sound levels shall be measured at or within the boundary of any Receiving Property, including at the property line or any relevant elevation or location on the parcel, where sound levels are expected or measured to be highest.

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Table 1 – Maximum Permissible Sound Level - Numeric Noise Limits

Receiving Properties by Zoning District (1)	Daytime Hours (7:00 AM to 7:00 PM):	Nighttime Hours (7:00 PM to 7:00 AM):
Agricultural, Residential, Institutional, Village and Properties containing Sensitive Receptors (*Regardless of Zoning District*)	55 dB(A) / 70 dB(C)	45 dB(A) / 60 dB(C),
Commercial / Professional Office	55 dB(A) / 70 dB(C)	50 dB(A) / 65 dB(C)
Industrial (*Subject to Note 2*)	60 dB(A) / 75 dB(C)	55 dB(A) / 70 dB(C)

Notes:

(1) Where a receiving property is split by more than one zoning district, the more stringent noise limit shall apply to the entire receiving property.

(2) These standards shall apply to adjacent industrial properties located on separate industrial tracts or parcels within the Industrial (IND) District, provided such properties are not part of a unified Data Center development being evaluated.

D. Low-Frequency Sound Standards

(1) The difference between the measured dB(C) and dB(A) sound levels at any Receiving Property shall not exceed 15 dB. A low-frequency delta exceeding 15 dB shall constitute an automatic noise disturbance violation.

(2) Upon violation, the owner, operator or developer shall submit an engineering remediation plan, prepared by a qualified acoustical professional, at the owner, operator or developers' cost, to identify and execute mandatory mitigation measures to include among others acoustic barriers, enclosures, silencers, attenuators, acoustic louvers, equipment orientation, operational controls, or other industry-accepted best practices necessary to mitigate low-frequency sound and achieve immediate compliance with this subsection.

E. Prominent Discrete Tone Standards

(1) In the presence of a prominent discrete tone, as measured at a receiving property, the measured sound level shall be increased by 5 dB for purposes of determining compliance with the dB(A) and dB(C) sound level limits established herein. The 5 dB increase shall be applied as a compliance penalty to the measured sound level and shall not modify the applicable sound level limits established herein.

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(2) A "prominent discrete tone" is defined as a sound that can be heard distinctly as a single pitch or set of pitches.

(3) A prominent discrete tone shall be deemed to exist where one-third octave band sound pressure level in the band with the tone exceeds the arithmetic average of the sound pressure levels of two contiguous one-third octave bands by:

1. 5 dB for center frequencies of 500 Hz and above

2. 8 dB for center frequencies between 160 and 400 Hz; or

3. 15 dB for center frequencies less than or equal to 125 Hz.

(4) The existence of a prominent discrete tone shall be determined through one-third octave band analysis performed by a qualified acoustical professional, at the owner, operator or developers' cost.

(5) Clearly perceptible low-frequency tonal noise shall require mitigation regardless of overall dBC compliance, as determined by the Qualified Acoustic Professional or the Township based on clearly perceptible tonal characteristics.

F. Impulsive and Intermittent Sound Standards.

(1) No impulsive or intermittent sound generated by any use within the IND District, including a Data Center, Data Center Accessory Use, or BESS, shall exceed the applicable sound level limits established herein by more than 5 dBA at any time.

(2) Any impulsive or intermittent sound exceeding the applicable limits by more than 5 dBA shall constitute an automatic noise disturbance violation and shall be subject to the enforcement and immediate remediation provisions of this subsection.

G. Adjustments for High Pre-Existing Ambient Noise Levels. In the event that an applicant demonstrates through a verified Pre-Construction Ambient Baseline Study that the pre-existing ambient noise floor at a specific Receiving Property boundary already exceeds the baseline limits established herein, the following adjusted standards shall govern:

(1) Adjusted Facility Limit. The sound levels generated solely by the facility operations, including any Data Center, Data Center Accessory Use, or BESS, shall not exceed the verified pre-construction ambient baseline sound level during the applicable time period.

(2) Prohibited Cumulative Increases. Under no circumstances shall the continuous, impulsive, or intermittent operation of the facility, including any Data Center, Data Center Accessory Use, or BESS, cause the total cumulative sound pressure level (the facility sound combined with existing ambient sound) at the Receiving Property to

increase by more than three (3) dBA above the verified pre-construction ambient baseline.

(3) Tonal and Frequency Exclusions. Ambient adjustments shall not apply to the Prominent Discrete Tone Standards, Low-Frequency Sound Standards, or Impulsive and Intermittent Sound Standards established within this subsection. Regardless of an elevated pre-existing ambient noise floor, the facility, including any Data Center, Data Center Accessory Use, or BESS, remains strictly prohibited from introducing new, distinct mechanical whines, tones, hums, impulsive spikes, or low-frequency deltas exceeding 15 dB into the receiving environment.

H. Definitions.

RECEIVING PROPERTY. A Receiving Property shall mean any real property or parcel impacted by noise or vibration generated by a use within the IND District, including a Data Center, Data Center Accessory Use, or Battery Energy Storage System (BESS), whether or not directly adjacent to the parcel on which the noise or vibration source is located. A Receiving Property shall not include property incorporated within the same approved unified facility, including a Data Center development, whose compliance is being evaluated.

SENSITIVE RECEPTOR. A Sensitive Receptor shall be as defined in Chapter 245 (Zoning).

I. Noise Measurement Standards and Procedures.

(1) For purposes of compliance with this Section, sound levels shall be measured at or within the boundary of any Receiving Property, including any relevant elevation, where sound levels are expected or measured to be highest.

(2) Sound level meters must meet ANSI/ASA S1.4 Type 1 (Class 1) Precision specifications, and octave-band filters must meet ANSI/ASA S1.11 Class 1 specifications. All measurement procedures shall conform to the applicable provisions of ANSI/ASA S1.4, ANSI/ASA S1.11, ANSI/ASA S1.13, ANSI/ASA S12.9, and their successor standards.

J. Exceptions. The sound level limits established within this Section shall not apply to sound originating from:

(1) Motor vehicles operated legally and in compliance with the noise regulations of the Pennsylvania Department of Transportation;

(2) Safety and protective devices where noise suppression would defeat the safety intent of the device when being used for its intended purpose;

(3) Any device intended to provide public warning of potentially hazardous, emergency, or illegal activities, including commercial, residential, or vehicle burglar alarms; back-

up signals on regulated and licensed motor vehicles; fire alarms; law enforcement and emergency response vehicles; and similar safety signaling devices;

(4) Emergency equipment and emergency work necessary in the interest of public health, safety, or welfare, or executed by law enforcement or emergency services;

(5) Emergency standby generators during a bona fide emergency utility power outage, provided such use is limited strictly to periods of unplanned electrical grid failure or interruption from the public utility provider;

(6) Construction noise, including site preparation, assembly, erection, demolition, substantial repair, maintenance, alteration, or similar action for structures or other site improvements, provided that such construction occurs exclusively during Daytime Hours and that reasonable noise controls—including proper muffling of all engines, motors, or turbine-driven equipment, and pneumatic devices; noise-enclosed air compressors and generators; sound barriers; and lagging—are actively employed.

K. Routine Generator Testing.

(1) Routine testing of emergency generators shall comply with the baseline sound level limits established herein, except when such testing occurs exclusively between the hours of 10:00 AM and 3:00 PM on weekdays, Monday through Friday.

(2) No routine generator testing shall occur on weekends (Saturday or Sunday) or federal and state holidays, except during a bona fide emergency or when otherwise required by a federal or state agency.

(3) During the permitted weekday testing hours, sound levels generated by generator testing may exceed the established baseline daytime dBA sound level limits by no more than 10 dBA for a maximum cumulative period of one (1) hour during a single calendar day. This 1-hour limitation shall apply cumulatively to the entire property footprint, encompassing all on-site generators combined. Under no circumstances shall the cumulative total of all generator testing across the entire facility exceed three (3) hours during any consecutive seven-day period.

(4) The 10 dBA testing allowance shall apply exclusively to the dBA limits and shall not apply to the maximum established dBC limits. The facility shall strictly maintain full compliance with the baseline dBC caps and the 15 dB C-minus-A maximum delta at all Receiving Property boundaries during all testing periods.

L. Vibration Standards.

(1) Ground-Borne Vibration Prohibitions. No facility or use within the IND District, including any Data Center, Data Center Accessory Use, or BESS, shall generate continuous, steady-state, or intermittent ground-borne or structurally induced

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vibration that exceeds the limits established herein when measured at or within any Receiving Property boundary line.

(2) Agricultural, Residential, Village Districts, and Sensitive Receptors: Ground-borne vibration velocity levels shall not exceed 65 VdB (expressed in vibration velocity decibels relative to one micro-inch per second, root-mean-square [RMS]) at or beyond the property line of any property located within an agricultural, residential, or village zoning district, or any designated sensitive receptor, regardless of the underlying zoning district.

(3) Commercial and Industrial Districts: Ground-borne vibration velocity levels shall not exceed 78 VdB (expressed in vibration velocity decibels relative to one micro-inch per second, RMS) at or beyond the property line of any property located within a commercial or industrial zoning district that does not contain an active sensitive receptor.

(4) Continuous Structural Limit: The maximum instantaneous Peak Particle Velocity (PPV) resulting from any operational, maintenance, or testing activity (including periodic backup generator testing) shall not exceed 0.02 inches per second across any axis at any boundary or property line referenced in this subsection.

Section 2 – **Severability**. The provisions of this Ordinance are severable. If any section, subsection, sentence, clause, or provision of this Ordinance is held to be invalid, unlawful, preempted, or unconstitutional by a court or agency of competent jurisdiction, such decision shall not affect the validity of the remaining provisions of this Ordinance, which shall remain in full force and effect. The Board of Commissioners hereby declares that it would have enacted this Ordinance, and each section, subsection, sentence, clause, and provision thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, or provisions be declared invalid.

Section 3 – **Repealer**. All ordinances or resolutions or parts thereof, insofar as they are inconsistent herewith, shall be and the same are hereby repealed.

Section 4 – **Effective date**. This ordinance shall become effective immediately.

ORDAINED AND ENACTED INTO ORDINANCE this ____ day of _____, 2026.

WITNESS: **TOWNSHIP OF UPPER ALLEN**

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