

Environmental Justice/Title VI Review
EdgeConneX CH103 Expansion Project
I.D. No.: 031804ABS
Application No.: 18020010

1. Introduction

This document describes the various Environmental Justice (EJ) and Title VI¹-related considerations undertaken by the Illinois EPA's Bureau of Air in evaluating the above-referenced construction permit application. Because the proposed project will be located in an EJ area of concern, the Illinois EPA's policies for enhanced public outreach and evaluating potential impacts to overburdened communities were addressed in the permit review process. In addition, a Title VI-related settlement agreement (i.e., Informal Resolution Agreement or IRA) entered between the Illinois EPA and the USEPA in February 2024² was applied to this review process and resulted in a written analysis of the applicant's history of prior adjudications and past compliance, as discussed later.

2. Permitting Project:

EdgeConneX Chicago Holdings, LLC, (EdgeConneX) proposes to expand operations at its existing electronic data center located at 2055 Lunt Avenue in Elk Grove Village, Cook County, Illinois. Elk Grove Village is a community comprised of an estimated 32,000 people and is located directly adjacent to the O'Hare International Airport. The area is home to a concentrated hubs of manufacturing, logistic freight, and other economic activities, including several data centers.

Data center operations are generally classified by the Standard Industrial Classification (SIC) Manual as falling within the three-digit Industry Group Code 737 (Computer Programming, Data Processing, and Other Computer Related Services). Recent media reports indicate that increasing demands for internet-driven services, cloud storage and artificial intelligence (AI) technology are spurring new or expanding data center developments across the industry. Such efforts are generally viewed as essential to promoting the Nation's modern infrastructure needs.

EdgeConneX proposes to expand its operations of emergency and auxiliary generators at its existing Elk Grove Village facility by adding 14 diesel-fired emergency generators (each rated at 2,750 kilowatt (kW) and 4,043 horsepower (HP)) and 2 auxiliary generators used for support facility functions (rated at 1,250 kW and 1,838 HP). These emergency generators will meet the USEPA's Tier 2 emission standards for non-

¹ Title VI refers generally to the requirements of Title VI of the federal Civil Rights Act of 1964, which is one of eleven titles to the law and is entitled "Nondiscrimination in Federally Funded Programs." See, 42 U.S.C. §§2000d to §§2000d-7.

² The negotiated terms of this IRA involved a Title VI disparate impacts complaint filed with USEPA in 2020 stemming from the issuance of a construction permit to General III for the relocation of a scrap metal recycling facility to Chicago's Southeast Side. The *General III IRA* memorializes the Illinois EPA's commitment to consider additional factors in its review of certain construction permit applications, as well as to enhance its public participation policies, for the purpose of improving transparency and assuring meaningful public access to its programs and activities. Additional information concerning the settlement agreement can be found on the Illinois EPA's webpage (i.e., use the Environmental Justice tab from the General Information drop-down menu).

road engines over 37kW (50 horsepower); the regulations classify engines as Tier 1 through Tier 4, with each tier reflecting more stringent standards over time. The emergency generators are used to support the data center when electrical generating power from the grid is not available due to outages.

The issued construction permit limits the operating runtime of the 14 emergency generators to 630 hours per year (hrs/yr) on a combined basis. Emissions from each generator (also referred to as Genset) are limited to an emissions rate expressed in pounds per hour (lbs/hr) for specific pollutants, as well as a tons per year (tons/yr) limit for the same pollutants for all 14 generators combined. See, Special Condition 13(a)(i) and (ii). The construction permit similarly restricts the runtime of the 2 auxiliary generators to 90 hrs/yr on a combined basis and establishes separate lbs/hr and tons/yr emission limits for conventional pollutants. See, Special Condition 13(a)(iii) and (iv). The pollutants for which emission limits are established are as follows: carbon monoxide (CO), nitrogen oxides (NOx), particulate matter (PM), sulfur dioxides (SO₂), and volatile organic materials (VOM). These operating limitations were established to assure that the facility, when combined with other emissions from existing operations at the source, do not trigger the major source requirements of 35 Ill. Adm. Code Parts 203 (Major Stationary Source Construction and Modification) and 204 (Prevention of Significant Deterioration).

The construction permit also limits certain operational aspects of the maintenance and readiness testing conducted for all generators permitted by this project. Each generator cannot operate for any more than 2 hours at a time during maintenance or readiness testing and, further, cannot operate more than a total of 45 hours annually during those same periods. See, Special Condition 13(a)(b). Only one generator may operate at a time during maintenance or readiness testing, and no more than 6 generators can operate during any calendar day during the same maintenance and testing events. See, Special Condition 13(a)(c). In addition, operations of the generators during maintenance and readiness testing events are limited to daytime hours of 7 a.m. and 6 p.m. See, Special Condition 13(a)(d). These operating limitations were established in the construction permit as a condition of the air quality modeling analysis performed for this project.

3. Emissions Profile of Area and Proposed Project:

As previously noted, the Elk Grove Village area is the home of numerous manufacturing and/or industrial activities. The area within an approximately one-mile radius of the proposed site includes at least three metal fabricators, as well as the northwest part of O'Hare airport.

The Elk Grove Village location for this construction permit is in Cook County, which is designated as “serious” non-attainment area for the 8-hour ozone (2015) standard and attainment for all other criteria pollutants. As noted above, the construction permit prepared by the Illinois EPA in this proceeding contains federally enforceable permit limits that will assure that the proposed facility will be constructed and operated as a permitted minor source.

This construction project would result in proposed increases in annual permitted emissions of criteria pollutants from the facility, as follows:

Pollutants	Permitted Emissions Increase (Tons per Year)
NOx	14.96
Carbon Monoxide (CO)	1.93
Particulate Matter (PM)	0.15
Volatile Organic Material (VOM)	0.26
Sulfur Dioxide (SO ₂)	0.03

It should be noted that the environmental impacts associated with this project do not reflect continuous operation of the engines from the project but, rather, contemplate emissions only during planned maintenance and testing and at times when the facility experiences a power outage.

4. Mapping Tool Results:

The Illinois EPA continues to implement its EJ Policy through the use of EJ Start, which relies on census data for identifying potential areas of EJ concern based on low income and minority populations. In this case, the Illinois EPA conducted enhanced public outreach because the mapping tool identified the area surrounding the proposed site as a potential area of EJ concern. See, EJ Outreach below.

At the time of this permit review, information identifying EJ-related screening results previously obtained through the U.S. Environmental Protection Agency's EJScreen webpages are no longer available. Demographical information relating to the local community can be found on Wikipedia: The Free Encyclopedia at [Elk Grove Village, Illinois - Wikipedia](#), as well as from the American Community Survey database maintained on the U.S. Census Bureau's website.

5. EJ Outreach:

The Illinois EPA conducted enhanced outreach through the EJ notification process. The EJ notification letter was sent to 86 separate groups, individuals, and elected officials on August 30, 2024. No inquiries were received in response to the EJ notification letter.

6. Air Quality Modeling Analysis:

At the Illinois EPA's request, the project underwent a comprehensive air quality modeling analysis to predict the air quality impacts from the project. An initial modeling report and electronic modeling files was submitted by Trinity Consultants, Inc., (Trinity) to the Illinois EPA on June 13, 2025.

The source impact analysis of the relevant NAAQS and their respective averaging periods showed modeled concentrations from the facility operating at various loads and their comparison to USEPA's significant impact levels (SILs) for the various pollutants. The modeling results showed modeled impacts for the annual averaging period for nitrogen dioxides (NO₂) exceeding the respective SIL for that pollutant,

and Bureau of Air/Modeling Unit's audit confirmed the source impact analysis results. Trinity also undertook an analysis addressing the anticipated impact of precursor increases of NOx, SO2 and VOM on both ozone (O3) and secondary PM2.5 formation, which the Illinois EPA audited. The results of both analyses did not show the project as significantly impacting O3 or PM2.5 from secondary formation.

A NAAQS analysis of modeled concentrations of NO2 (annual averaging period) was performed by Trinity and audited by the Modeling Unit. Modeling results showed that the NO2 annual averaging period would be moderately below the NAAQS value for the same averaging period, indicating that the NAAQS would be protected for criteria pollutants, including for the pollutant of concern, NO2. However, this assurance was conditioned on several operating restrictions identified by the Modeling Unit whenever NOx emissions are generated during periods of maintenance and readiness testing. These restrictions are being carried over into the issued construction permit as enforceable permit conditions.

The Modeling Unit also performed a type of air toxics screening assessment (generally known as an air emissions risk analysis) that employs modeling and other information to assess potential risks from a project's impacts. Using a screening tool developed by the Minnesota Pollution Control Agency, which is known as the Risk Assessment Screening Spreadsheet (RASS), modeled concentrations of air toxics or Hazardous Air Pollutants (HAPs) were compared with reference concentrations representing calculated individual or cumulative risk values. In this case, all modeled concentrations were found to be below the threshold of 1.0 for modeled risk values and therefore no additional dispersion modeling was found necessary.

For additional details concerning the modeling analysis, see the Memorandum from the Modeling Unit to the State Permits and FESOP Unit of the Permit Section, September 9, 2025.

7. Permit Enhancements:

Permit enhancements consist of permit conditions that are incorporated into construction permits by the Illinois EPA to assure that a source can achieve compliance with applicable requirements, or that are necessary to accomplish the purposes of the Illinois Environmental Protection Act (Act) and are not inconsistent with Illinois Pollution Control Board (PCB) regulations. The Illinois EPA frequently considers permit enhancements when authorized by existing law.

As previously noted, the modeling analysis resulted in a number of restrictions, mentioned above in the modeling discussion, that are carried over into the construction permit. As a result of these limitations, the permittee's proposed facility will be restricted to emission levels that are protective of the NAAQS and that are below emission thresholds that would otherwise trigger major source requirements under the nonattainment areas regulations found at 35 Ill. Adm. Code Part 203. The operating restrictions are found in Special Condition 13(b), (c), and (d), and the finding of non-applicability of the major source rules is found in Special Condition 1(a) of the permit.

In addition, the source has submitted an episode action plan for the facility, consistent with other recent data center projects permitted by the Illinois EPA. In this regard, the source will comply with the requirements of Subpart C, entitled Episode Action Plans, of 35 Ill. Adm. Code Part 244. Special Condition 12(a) of the construction permit address these requirements.

8. Past Adjudications and/or Past Compliance History of Applicant:

Because the construction project implicated the requirements of the *General III IRA*, the EJ/Title VI review document for this permitting action affirmatively considered the prior adjudications and past compliance history of the permit applicant, consistent with existing permit authorities found in the Act.

In this instance, a search of the applicant's name does not reveal any prior adjudications or the entry of agreed consent orders by Illinois state courts or by the Pollution Control Board (PCB). A review of the applicant's past compliance history for air-related matters from USEPA's Enforcement and Compliance History Online (ECHO) does not reveal any data entries for the applicant.

9. Additional Considerations:

Increased emissions of PM (especially PM_{2.5}) and HAP-related emissions from a permitting project may present concerns to people residing in the vicinity of a project's planned location, particularly where there are other industrial sources located nearby. PM_{2.5} is often a pollutant of concern in communities that border areas of industrial or manufacturing activity because of the adverse effects that smaller-sized particles of PM may pose to the environment or to human health. For this project, there is only a negligible increase in permitted annual emissions of PM for the 16 engines associated with this project, which is evidenced in the combined 0.15 tons/yr increase of PM emissions shown in the Special Condition 13(a)(ii) and 13(a)(iv). In addition, the air quality modeling analysis confirmed that modeled concentrations of PM2.5 and PM10 emissions for this project would be below the applicable NAAQS standard and respective averaging periods.

HAP-related emissions from a construction project may also pose public concerns due to their individual or collective impacts. For this project, the Modeling Unit entered modeled emissions of HAPs from the project and corresponding dispersion values into a screening spreadsheet commonly used for evaluating an air toxics screening analysis. The analysis showed that the threshold for conducting a more thorough dispersion modeling analysis was not met. In addition, the issued construction permit contains a permit restriction common to minor source permits, as shown in Special Condition 14, for limiting the project's potential to emit to less than 10 tpy for any single HAP and 25 tpy for any combination of total HAPs. This permit condition assures that the source avoids major source status under the requirements of Section 112(g) of the Clean Air Act.

10. Evaluation of Title VI Criteria for Disparate Impact Discrimination:

As described by the Overview and Implementation webpage for the *General III IRA*, the criteria for evaluating whether agency action is responsible for disparate impact discrimination is 1) identifying the policy or practice at issue, 2) a showing of adversity/harm, 3) a showing of disparity and 4) a showing of causation. Although this examination can be complicated, the operative criterion in most cases involving

the permitting of air pollution sources is adversity/harm. The Illinois EPA's analysis in this review document examines the issue of alleged adversity/harm by assessing whether circumstances would support an enforcement action brought under existing environmental laws and regulations.

a. Substantive Standards

The issued construction permit will increase annual permitted emissions of NOx and CO to a modest degree. Permitted increases of VOM, PM, and SO₂ emissions associated with the project are largely *de minimis*. Based on the air quality modeling analysis, increased emissions from the project will not violate the NAAQS. As noted, the construction permit will limit emissions (monthly and annual) and operating runtime from the emergency generators to assure that the source remains a minor source (nonmajor for purposes of air permitting programs). Other permit restrictions during maintenance and readiness testing events were established in the construction permit for modeling purposes. Nothing presented in the permit review indicates that the proposed project would cause a violation of air emission standards addressed by the Act, the PCB's Subtitle C (Air Pollution) regulations, or applicable federal regulations adopted by USEPA and enforceable by the Illinois EPA under state law.

b. Narrative Standards

The Illinois EPA has no information that would demonstrate a violation of a narrative standard of air pollution based on possible health impacts.

c. Nuisance-Based Standards

There is no history of odor complaints or nuisance believed to be associated with the proposed facility, such that a claim of statutory or common law nuisance could be demonstrated.