Environmental Justice/Title VI Review
Iron Mountain Data Center
I.D. No.: 031063AUJ
Application No.: 23050030

1. Introduction

This document describes the various Environmental Justice (EJ) and Title VI[1]-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 United States Environmental Protection Agency (USEPA) in February 2024[2] was applied to the review process.

2. Permitting Project:

Iron Mountain Data Center (Iron Mountain) proposes to construct several emergency generators to support its' electronic data center located at 1680 East Touhy Avenue in Des Plaines, Illinois. Des Plaines is a suburb in Cook County whose proximity lies just north of Chicago's O'Hare Airport. The community is comprised of 60,000 people and retains a mix of economic activities, including a medical complex, a gambling casino, an airlines company, an oil products company, a food services company and a local college.

Data center operations are generally classified as Computer Processing and Data Preparation and Processing Services, Code 7376, under the Standard Industrial Classification system. 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.

Iron Mountain proposes to build 23 diesel-fired emergency generators at the new data center. The project will consist of one (1) life safety emergency generator set, rated at 1,000 kW, and an unspecified combination of twenty-two (22) generator sets manufactured by Cummins (designated C3000 D6e), rated at 3,213 kW, or by CAT (designated C175-16), rated at 3,000 kW. These emergency generators meet the USEPA's Tier 2 emission standards for non-road engines over 37KW (50 horsepower); the regulations

[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).

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.

For this construction permit, Iron Mountain is limiting both operating hours and emissions to restrict its potential-to-emit estimates of criteria pollutants to less than major source thresholds. For this project, NOx is the pollutant of concern because they are generated in the highest amounts during the run-time of the generators. The issued construction permit contains NOx emission limits (expressed in 17.65 pounds per hour (lbs/hr) and 0.57 tons per year (tpy)) for the single life safety emergency generator set, which is designed to provide backup power to systems designed for human safety, such as fire alarms, smoke detectors and emergency lighting. See, Special Condition 14(a). The issued permit also contains limits for the 22 emergency generator sets that are dedicated to supporting the data center's operations. More specifically, the permit contains an operating limit (36 hours of operation for each engine per year) and a NOx emission limit (49.49 lbs/hr) for the CAT generator sets (Special Condition 14(b)(i) and (b)(ii)) and an operating limit (65 hours of operation for each engine per year) and a NOx emission limit (49.49 lbs/hr) for the Cummins generator sets (Special condition 14(b)(iii) and (b)(iv). The combined NOx emissions from selected combination of emergency generators (designated 2-23 and excluding the life safety emergency generator) are limited to 35.39 tons per year (Special Condition 14(b)(v)).

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

Pollutants	Proposed Emissions Increase
	(Tons per Year)
NOx	35.96
Carbon Monoxide (CO)	2.15
Particulate Matter (PM)	0.47
Volatile Organic Material (VOM)	0.78
Sulfur Dioxide (SO_2)	0.05

Under the Illinois Environmental Protection Act, 415 ILCS 5/39 and 39.5, Iron Mountain must obtain both a construction and an operating permit for its emissions-related activities. A Federally Enforceable State Operating Permit (FESOP) application can be considered at a future date, contingent upon performance testing demonstrating compliance with applicable emissions standards. In the interim period, the issued construction permit will allow the facility to operate its permitted equipment until a Federally Enforceable State Operating Permit (FESOP) is issued. See, Special Condition 1(b).

3. EJ Screen Results:

At the time of this permit review, EJ Screen results previously obtained through the U.S. Environmental Protection Agency's EJScreen webpages are no longer available. Other federal agency screening guides, including the Environmental Justice Index administered by the Centers for Disease Control (CDC) and the Agency for Toxic Substances and Disease Registry (ATSDR) and the Climate and Environmental Justice

Screening Tool administered by the White House Council for Environmental Quality (CEQ), are also unavailable.

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.

Demographical information relating to the affected community can be found on Wikipedia: The Free Encyclopedia at Des Plaines, Illinois- Wikipedia and on a detailed facility report for this facility generated by USEPA's enforcement and tracking database known as the Enforcement and Compliance History Online (ECHO) Detailed Facility Report | ECHO | US EPA.

4. EJ Outreach and Public Participation Process:

The Illinois EPA conducted enhanced outreach through the EJ notification process. The EJ notification letter was sent to 69 separate groups, individuals, and elected officials on June 13, 2023. No inquiries were received in response to the EJ notification letter.

In accordance with the Illinois EPA Language Access Plan (LAP), Illinois EPA reviewed the American Community Survey results from the 2020 Census Bureau for the area of the proposed site. The percentage of households who speak English less than very well at home is 17.1% (Language Spoken at Home | American Community Survey | U.S. Census Bureau).

5. 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, within the context of both the National Ambient Air Quality Standards (NAAQS) and air toxics, associated with the project. An initial modeling report and electronic modeling files was submitted by Iron Mountain's consultant (Michael Baker International) to the Illinois EPA as part of the permit application.

An initial source impact (or significant impact) analysis of the relevant criteria pollutants and their respective averaging periods showed modeled concentrations from the facility operating at various loads and a comparison to USEPA's significant impact levels (SILs) for NO_2, SO_2, CO, $PM_{2.5}$ and PM_{10}. Modeling concentrations were compared to the SIL for each pollutant and averaging period. Peak modeled concentrations showed that only the NO_2 hourly and annual averaging periods would cause significant impacts. The modeling showed that for the secondary formation of both $PM_{2.5}$ and for ozone (O_3), the total predicted impacts from the project's alternative generator sets would be below significant impact levels.

A cumulative impact analysis evaluating the project's impact on NO_2 hourly and annual NAAQS was performed by the consultant, which was developed from background concentrations and nearby emissions inventory sources. Separate analyses were used to account for the CAT and Cummins engine

alternatives, both of which showed an exceedance of the 1-hr NO_2 standard. The Modeling Unit confirmed the results of the consultant's modeling analysis.

An additional analysis evaluating the contributions of on-site and off-site sources was performed to estimate the contributions to the modeled 1-hr NO_2 exceedance from the two groups. The analysis showed that the on-site grouping of generators would exceed the SIL threshold if all generators ran simultaneously. For this reason, a modeling limitation was imposed on the project to assure that during generator testing, only one generator would be operated at a time. And because testing of the generators would not typically feature all generators running in tandem, testing will only be conducted with a single generator operating at 80% load for one hour every 4 months. The issued permit reflects these modeling constraints.

A separate modeling assessment was made for four Hazardous Air Pollutants (HAPs) on account of total annual emissions of each of these pollutants would exceed those of all other HAPs. The HAPs evaluated in this analysis were Acrolein, Benzene, Formaldehyde, and Naphthalene. Modeled concentrations were compared with reference concentrations (utilizing both health-based guidance from Minnesota and the USEPA's Integrated Risk Information System). All modeled concentrations were below their respective reference concentration.

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, dated May 29, 2025.

6. 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 issued construction permit contains limitations on both operating hours and permitted emissions from the generator sets. See generally, Special Condition 14(a), 14(b) and 14(c). Restrictions on the operation of only one generator at a time during testing and the requirement of a one-hour test every 4 months at 80% load were also imposed as a modeling condition. See, Special Condition 17(c) and 17(d). As such, the construction permit restricts the pollutant of concern, NOx emissions, to levels below that which would both potentially cause or contribute to a NAAQS exceedance, as well as avoid triggering major source requirements under the nonattainment areas regulations found at 35 Ill. Adm. Code Part 203. The finding of non-applicability of the major source rules is shown in Special Condition 1(a) of the permit.

Additionally, the source agreed to adopt an Episode Action Plan in accordance with 35 Ill. Adm. Code Part 244 and the terms of the plan, submitted to the Illinois EPA on April 16, 2025, is incorporated into the

issued construction permit. Special Condition 12(a) through (vi) of the construction permit address these requirements.

7. 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, the applicant does not appear to have a history of past operation in Illinois or in the Des Plaines vicinity. 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 PCB. A review of the applicant's compliance history for air-related matters from USEPA's Enforcement and Compliance History Online (ECHO)) does not show any compliance concerns.

8. 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 a negligible increase in permitted annual emissions of PM (i.e., at 0.47 tpy) associated with the new data center and the associated emergency generators. 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 period for both components of PM.

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 concluded that for the four largest HAPs generated by the operations, modeled concentrations are significantly below, by several orders of magnitude, comparable reference concentrations. The construction permit also contains a permit restriction common to minor source permits, as shown in Special Condition 15, 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, assuring that the source avoids major source status under the requirements of Section 112(g) of the Clean Air Act.

9. 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, to a much lesser degree, CO. Permitted increases of VOM, PM, and SO_2 emissions associated with the project are largely *de minimis*. However, based on the air quality modeling analysis, the increased emissions for the pollutant of concern associated with the project, NO_2, will not violate the NAAQS. As noted, the construction permit will limit operating hours and emissions from the emergency generators to assure that the source remains a minor source (nonmajor for purposes of air permitting programs). Other permit requirements were established in the construction permit for modeling purposes, namely, a restriction on the number, duration and frequency of generator testing that is found in Special Condition 17. 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.