Environmental Justice/Title VI Review
Powertrain Rockford, LLC
I.D. No.: 201803AAF
Application No.: 24030001

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 USEPA in February 2024[2] 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:

Powertrain Rockford, LLC (Powertrain), is an existing manufacturer of various components of combustion engine-driven, heavy-duty equipment. These equipment components include drivelines, universal joints, fan clutches, power dividers and power transmission-related products. The address of the manufacturing facility is 1200 Windsor Road in Loves Park, Illinois, which is a residential, commercial, and industrial community located north of nearby Rockford, Illinois.

Powertrain's manufacturing operations entail the fabricating and welding of solid steel stock into various metal parts, some of which are directed to spray-booths for painting (utilizing coatings for heavy off-highway vehicle products). Painted parts and other miscellaneous metal parts are thereafter assembled into the final product, stored, and ultimately transported for delivery. At present, the facility operates one manual spray-painting booth with fabric filters and a spray gun, as well as a one-thousand Btu/hour natural gas-fired drying oven, and welding operations. The facility currently holds a Lifetime Operating Permit for the spray booth and drying oven that was issued August 28, 2019.

An application for a construction permit was received by the Illinois EPA from the company on March 4, 2024. The project seeks permit approval for the construction of two new product parts painting lines (Paint Lines 1 and 2) and associated spray booths, drying ovens and cleanup activities (toluene solvent

[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).

wiping). In addition, the project seeks approval for the construction of new business expansion, including three parts painting lines and associated spray booths, pyrolysis oven and solvent cleanup, as well as additional welding operations and a friction clutch machine.

Potential emissions from the existing facility are minor and no pollutant other than volatile organic material (VOM) possesses a potential-to-emit of more than one ton per year.[3] Emission increases from the project will result in Powertrain requiring a Federally Enforceable State Operating Permit (FESOP) in place of the facility's existing Lifetime Operating Permit.[4] This construction project would result in proposed increases in annual permitted emissions of criteria pollutants from the facility:

Pollutants	Proposed Emissions Increase (Tons per Year)
Nitrogen Oxides (NOx)	4.48
Carbon Monoxide (CO)	3.88
Particulate Matter (PM)	0.14
Particulate Matter less the 10 microns in diameter (PM10)	0.14
VOM	59.61
Sulfur Dioxide (SO2)	0.03
Single HAP (toluene usage being projected as highest)	5.30
Combined HAP	9.49

3. EJ Screen Results:

A copy of the USEPA's EJ Screen's Community Report was retrieved by the Illinois EPA for the facility's location utilizing a one-mile radius. A review of the EJ Indexes for this location (combining data on low income and people of color populations with selected environmental indicators) reveals percentiles greater than 80%[5] based on Illinois averages for the following indicator: Toxic Releases to Air at 82%.

A review of the Supplemental Indexes for this location (combing data on percent low income, percent persons with disabilities, percent less than high school education, percent limited English speaking, and percent low life expectancy with a single environmental indicator) reveals percentages greater than 80% based on Illinois averages for the following indicator: Toxic Releases to Air at 91%.

[3] The potential-to-emit for VOM emissions for the existing facility is 18.80 tons per year (tpy).

[4] A FESOP application was submitted on March 27, 2024, seeking to incorporate welding operations into the permit. The Illinois EPA issued a Notice of Incompleteness to Powertrain on May 28, 2024, because of missing information and because emissions units associated with the change in permit status have yet to be constructed and shown to be in compliance with the Illinois Environmental Protection Act (Act) and applicable regulations. Future review of the FESOP application can be expected to resume after construction is undertaken under the issued construction permit and a resubmittal of relevant information is made.

[5] According to USEPA's EJ Screen technical manual EJScreen Technical Documentation for Version 2.3 (epa.gov), USEPA identified the 80th percentile filter as an initial starting point when screening for EJ concerns. In other words, an area with any of the 13 EJ Indexes at or above the 80th percentile should be considered as a potential candidate for further review.

A review of the Environmental Burden Indicators data from the Community Report, which provides estimated values for pollution impacts and proximity to other sources, reveals percentiles greater than 80% based on Illinois averages for the following indicator: Toxic Releases to Air at 99%.

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 41 separate groups and elected officials on March 19, 2024. 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 USEPA EJ Screen community data for the area within one mile of the facility. The number of Limited English-Speaking is 0%, which is below the threshold for language access service found in the LAP.

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 from the project.

Powertrain's consultant performed an air quality dispersion modeling analysis to assess the environmental impact of increased emissions associated with its proposed spray-booths and new business line. The Modeling Unit of the Permit Section audited the consultant's modeling files, as well as the source impact analysis (to evaluate the need for more detailed modeling by comparing pollutant averaging periods to significant impact levels (SILs)). As a result of the latter, the consultant performed a National Ambient Air Quality Standards (NAAQS) analysis for NO_2 for both 1-hour and annual averaging periods. Modeled impacts from the permitted source and nearby inventory sources were obtained and compared with the NAAQS, indicating that both 1-hour and annual NO_2 emissions from the proposed project would be below their respective averaging period values.

An air toxics analysis was also performed by the consultant to evaluate impacts of potential toxic air pollutants emitted by Powertrain. Upon review of the consultant's calculations of such potential impacts, the Modeling Unit undertook an initial screening analysis, which identified 1, 6 Hexamethylene diisocyanate as an appropriate pollutant for dispersion modeling due to its toxicity. The air toxics analysis conducted by the consultant compared reference concentration levels identified by the Modeling Unit (consisting of values identified by both California and Michigan) with modeled impacts of the pollutant at the source, with the results showing all modeled concentrations below the relevant reference concentration levels.

For additional discussion of the modeling analysis, see the appended Memorandum from the Modeling Unit to the State Permits and FESOP Unit of the Permit Section, dated September 17, 2024.

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 Act and are not inconsistent with Illinois Pollution Control Board (PCB) regulations. The Illinois EPA frequently considers permit enhancements when authorized by existing law.

Although the proposed project results in a notable increase in VOM emissions and minor increases in other air pollutants, the affected area is currently designated attainment for all NAAQS pollutants. More importantly, the issued construction permit will contain permit limits to restrict operation and emissions from the new business expansion. The permit contains monthly and annual permit limits for material usage (both for coatings and cleaning solvent) and emission rates from new spray-booths Nos. 1 and 2 for VOM, HAPs (single HAP and combined HAPs) and PM/PM10, and coating usage and emission limits for spray-booth No. 3. These limits will assure that the facility maintains its status as a minor emissions source.[6] The company is not seeking a change to its existing permit limits for the existing paint line and drying oven.

The issued construction permit will also incorporate, for the first time, the requirements of 40 CFR 63, Subpart XXXXXX (National Emission Standards for Hazardous Air Pollutants (NESHAP) Area Source Standards for Nine Metal Fabrication and Finishing Source Categories), into the construction permit for welding operations at Powertrain's existing paint line and at the new business expansion. As shown in the permit application, the welding activities became operational at the facility in March 2012 and were permit exempt under applicable PCB regulations. During the preparation of the permit application for this construction permit, Powertrain apparently discovered that its welding operations were subject to the NESHAP Subpart XXXXXX requirements. This is because the welding rods used in the operations contain metal fabrication or finishing metal HAPs (MFHAP), specifically, manganese containing up to 5% by weight.

The NESHAP Subpart XXXXXX regulations require an existing or new welding affected source to meet specified management practices for minimizing MFHAP, which Powertrain meets by using gas metal arc welding (GMAW), and to follow manufacturer's instructions. Among other things, an affected source like Powertrain must monitor for visible emissions, meet applicable opacity standards, and implement a Site-Specific Welding Emissions Management Plan (Management Plan). The current Management Plan for Powertrain was submitted as part of the permit application.

[6] As mentioned, the existing Powertrain facility is a natural minor source but, upon construction of the project, will become a synthetic minor/area source.

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.

A review of the applicant's history at the Rockford facility does not reveal any prior adjudications or the entry of agreed consent orders by Illinois state courts, federal courts, or by the PCB. Similarly, a review of the applicant's past compliance history for air-related matters at the Rockford facility (per USEPA's Enforcement and Compliance History Online (ECHO)) does not reveal any recent involvement by the source in the pre-enforcement processes of either the Illinois EPA or USEPA.

At the time of the application's submittal, the last Illinois EPA inspection of the facility was conducted in 2001. The gap in inspection visits is a product of the facility's long-standing status as a lifetime operating source and the facility's limited emissions-related activities (historically, the facility has consisted of a coating line, a drying oven, as well as permit-exempt solvent cleaning and welding operations). To facilitate the review of the facility's compliance history for purposes of this Title VI review document, a field inspection was performed on October 25, 2024. The field inspection did not reveal any compliance concerns, as the inspector found no visible emissions or odors present, VOM usages and emission from the existing paint line were found to operate well below permitted limits, and HAP emissions were also found to operate well below the permitted major source thresholds.

It can be noted that the NESHAP Subpart XXXXXX rules first became effective on July 23, 2008, and the permit application shows that the regulations became applicable to the facility's welding operations in March 2012. Although the welding operations were permit-exempt and the use of GMAW by the facility met the substantive control requirements of the NESHAP, Subpart XXXXXX, there was an evident delay in meeting some of the monitoring and management plan requirements of the regulations. Based on the application, the construction permit is being issued upon the finding that the welding operations will meet the requirements of the federal rule. Other than adding in the NESHAP Subpart XXXXXX requirements, no additional enhancements to the construction permit were deemed necessary to assure Powertrain's compliance in this regard.

8. Additional Considerations:

A survey of Google Earth Map for permitted emission sources located within a roughly 1-mile radius of Powertrain's facility reveals the presence of a screen-printing shop and a petroleum bulk storage and handling station. These industrial facilities are small, nonmajor sources. A survey of other community features reveals the presence of sensitive populations and/or places of public gatherings in relation to the Powertrain facility. A review of both the EJScreen Community Report utilized in this review and Google Earth Map reveal the presence of 11 schools (including pre-school and child-care facilities), 5 places of worship, and 2 medical-related facilities within the one-mile radius of the facility. A survey of Google Earth Map also reveals approximately 9 retirement, home care or rehabilitation facilities located within an approximate 1-mile radius of the Powertrain facility.

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 permitted increase in PM emissions (i.e., at 0.14 tpy) projected to occur from the new business expansion (including the welding operations). As mentioned, the greater Rockford area is an attainment area for PM and the existing facility's contribution to PM emissions to the area is relatively inconsequential. As shown by EJ Screen's Community Report profile, environmental indicators rank PM pollution as being slightly above the state average for this location but in the 57th percentile of total rankings.

HAP-related emissions from a construction project may also pose public concerns due to their individual or collective impacts. For this project, the company's initial permit application proposed the use of toluene, a recognized HAP, for use as a clean-up solvent in both new spray-booths and new business expansion. However, Powertrain later determined that a water-based material would be used in lieu of toluene for the new business expansion, thereby modestly reducing the emissions profile of the project in terms of HAP-related emissions (i.e., a roughly 2.12 tpy projected reduction). The facility plans to evaluate future options for utilizing a water-based solvent for the spray-booths lines. The permit contains permit limits for the single HAP category of 5.30 tpy and in the total HAP category of 9.49 tpy.[7] As mentioned, these conditions limiting emissions and material usage for Powertrain's business expansion are meant to avoid major source status.

The earlier section outlining EJ Screen results observed that Powertrain ranks high in the Toxics Releases to Air category of environmental indicators, shown as being in the 99th percentile as compared to the state average for this location. The screening indicator identified here is a product of the following: 1) chemicals reported as air releases by companies subject to regulation under the Toxic Release Inventory (TRI) program and 2) data generated by USEPA's Risk-Screening Environmental Indicators (RSEI) model. RSEI scores reflect estimates of human health risks based on modeling of chemicals found in both ambient air at specific locations within the environment and weighted in terms of chemical concentrations by their relative toxicities. The scores are mostly used for trend analyses or to support additional environmental study.[8]

The RSEI score, depicted by media (air releases) and for the area covered by Powertrain's location, is 31,426,971. The scoring reflects chemical data collected from 62 TRI-reporting sources in the Rockford area and a 10-year reporting period ending in 2022, which is the latest calendar year of reporting. A review of the Easy RSEI summary report suggests that the scoring is largely influenced by data regarding past releases of chromium/chromium compounds reported by two nearby tool cutting manufacturers. The report indicates that these releases dropped significantly in the last three years of the reporting period (i.e., 2020, 2021 and 2022).

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

[7] See table above.

[8] See, Learn About RSEI chapter to USEPA's RESI Model, https://www.epa.gov/rsei/learn-about-rsei.

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 six pollutants, specifically, VOM and single/collective HAP emissions in modest amounts. However, based on the air quality modeling analysis, increased emissions from the project will not violate the NAAQS or relevant reference exposure levels for a HAP of concern. The construction permit will also limit emissions and material usage from the new business expansion to assure that the source remains a minor emissions source. 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 Powertrain facility, such that a claim of statutory or common law nuisance could be demonstrated.