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February 27, 2024

### **VIA U.S. Mail, Email, and Hand Delivery**

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Re: **Agenda Item No. 2: Consideration of Resolution Granting a Use Permit, Design Review, and Variance and Adoption of an Initial Study / Mitigated Negative Declaration and Mitigation Monitoring Reporting Program (for the Linde Inc., Oakstone Northern California Expansion Project, AP-23-0046 (UP, DR, VA))**

Dear Chair Popova, Planning Commissioners, Ms. Evenson, Mr. Brenyah-Addow and Mr. Funderburg:

We write on behalf of **Safe Fuel and Energy Resources California (“SAFER CA”)** regarding Agenda Item No. 2, the Oakstone Northern California Expansion Project (“Project”) proposed by Linde, Inc. (“Applicant”). SAFER CA objects to the City of Pittsburg (“City”) Planning Commission’s proposed approval of the Project due to the City’s continuing failure to comply with the California Environmental Quality Act (“CEQA”).<sup>1</sup> The Initial Study / Mitigated Negative Declaration (“IS/MND”) prepared for the proposed Project fails as an informational document under CEQA and the City lacks substantial evidence to conclude that the Project’s

<sup>1</sup> Pub. Resources Code § 21000 *et seq.*

potentially significant impacts would be adequately mitigated.<sup>2</sup> To the contrary, substantial evidence supports a fair argument that the proposed Project may cause potentially significant, unmitigated impacts on public health and air quality, and from hazards and hazardous materials, which requires preparation of an environmental impact report (“EIR”). The Staff Report and responses to comments fail to resolve these issues.<sup>3</sup>

Given the ongoing deficiencies with the IS/MND as described below, SAFER CA respectfully requests that the Planning Commission continue the public hearing and direct City staff to prepare an EIR that fully discloses, analyzes, and mitigates the Project’s potentially significant environmental impacts before considering Project approval.

## I. INTRODUCTION

The Applicant proposes to expand their existing industrial gas facility located at 2000 Loveridge Road, Pittsburg, California 94565 (APN No. 073-190-035).<sup>4</sup> The expanded facility would increase current production of liquid nitrogen, oxygen, and argon to be distributed via truck to the Bay Area, Central Valley, and nearby states by installing a new air separation unit system.<sup>5</sup> The proposed expansion includes construction and operation of a second centralized atmospheric separation plant, which would include air compressors, pre-purifier vessels, an industrial class chiller, a distillation tower containing heat exchangers, booster compressor/turbine sets, and cryogenic distillation columns, three individual storage tanks, interconnecting piping, and a cooling tower.<sup>6</sup> The expansion would also require electric substation upgrades to distribute the large amount electricity needed to operate the facility.<sup>7</sup>

The entire plant is outdoors, and no buildings are proposed for the Project.<sup>8</sup> Construction of the Project would occur over approximately 13 months, including

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<sup>2</sup> City of Pittsburg, Oakstone Northern California Expansion Project: Draft Initial Study / Mitigated Negative Declaration (Oct. 2023) (hereinafter “IS/MND”), *available at* <https://www.pittsburgca.gov/home/showpublisheddocument/15486/638328001708630000>.

<sup>3</sup> City of Pittsburg, Planning Commission Staff Report, Item: Consideration of a Resolution Granting a Use Permit, Design Review and Variance and Adoption of an Initial Study Mitigated Negative Declaration and Mitigation Monitoring Reporting Program for the Linde Inc., Oakstone Northern California Expansion Project, AP 23-0046 (UP, DR, VA) (Feb. 27, 2024) (hereinafter “Staff Report”).

<sup>4</sup> IS/MND at p. 1.

<sup>5</sup> *Ibid.*

<sup>6</sup> *Id.* at p. 2.

<sup>7</sup> *Id.* at p. 8.

<sup>8</sup> *Id.* at p. 2.

site preparation, grading, onsite utilities, paving, and equipment installation.<sup>9</sup> The Applicant is seeking approval of the IS/MND, a use permit, design review, and variance from the Planning Commission.<sup>10</sup>

We reviewed the IS/MND, available supporting documents, and responses to comments with the assistance of our technical expert, Phyllis Fox, Ph.D., P.E., whose comments are attached as Exhibit A.<sup>11</sup> Based on our review, we conclude the document fails to comply with CEQA because the IS/MND does not provide an adequate discussion of the environmental setting, obscuring the analysis of environmental impacts. The IS/MND also fails to disclose, analyze, and mitigate all potentially significant adverse impacts to public health, air quality, hazards and hazardous materials that could result from construction and operation of the Project. There is substantial evidence supporting a fair argument that the Project may result in potentially significant, unmitigated impacts.

To correct these flaws, the City must prepare an EIR that fully discloses, analyzes, and mitigates the Project's potentially significant impacts and considers alternatives to the Project.

## II. STATEMENT OF INTEREST

SAFER CA advocates for safe processes at California's industrial facilities to protect the health, safety, standard of life and economic interests of its members. For this reason, SAFER CA has a strong interest in enforcing environmental laws, such as CEQA, which require the disclosure of potential environmental impacts of, and ensure safe operations and processes for, California's industrial projects. Failure to adequately address the environmental impacts of such projects poses a substantial threat to the environment, worker health, surrounding communities and the local economy.

The members represented by the participants in SAFER CA live, work, recreate and raise their families in Contra Costa County and the City. Accordingly, these people would be directly affected by the Project's adverse environmental impacts. The members of SAFER CA's participating labor organizations could also work on the Project itself. They will, therefore, be first in line to be exposed to any hazardous materials, air contaminants, and other health and safety hazards, that exist onsite.

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<sup>9</sup> *Id.* at p. 9.

<sup>10</sup> *Ibid.*

<sup>11</sup> **Exhibit A**, Phyllis Fox, Comments on the Initial Study/Mitigated Negative Declaration for the Oakstone Northern California Expansion Project (Feb. 26, 2024) (hereinafter "Fox Comments").

SAFER CA seeks to ensure a sustainable construction industry over the long-term by supporting projects that offer genuine economic and employment benefits while minimizing adverse environmental and other impacts on local communities. SAFER CA and its members are concerned about projects like this one that risk serious environmental harm without providing countervailing economic benefits. CEQA provides a balancing process whereby economic benefits are weighed against significant impacts to the environment.<sup>12</sup> It is in this spirit we offer these comments.

### III. LEGAL STANDARD

CEQA requires that lead agencies analyze any project with potentially significant environmental impacts in an EIR, except in limited circumstances.<sup>13</sup> The purpose of an EIR “is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR protects not only the environment, but also informed self-government.”<sup>14</sup>

The presumption in favor of preparing an EIR, rather than a mitigated negative declaration, is reflected in the “fair argument” standard. Under that standard, the lead agency must prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that the project may have a significant effect on the environment.<sup>15</sup> The fair argument standard creates a “low threshold” of favoring environmental review through an EIR, rather than through a mitigated negative declaration.

“Substantial evidence” required to support a fair argument is defined as “enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached.”<sup>16</sup> “[I]n marginal cases where it is not clear whether there is substantial evidence that a project may have a significant effect on the environment, the lead agency shall be guided by the following principle: If there is

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<sup>12</sup> Pub. Resources Code § 21081(a)(3); *Citizens for Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151, 171.

<sup>13</sup> Pub. Resources Code § 21000; 14 Cal. Code Regs. (“CEQA Guidelines”) § 15002.

<sup>14</sup> *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 564 (internal citations omitted).

<sup>15</sup> Pub. Resources Code §§ 21080(d), 21082.2(d); CEQA Guidelines §§ 15002(k)(3), 15064(f)(1), (h)(1); *Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1993) 6 Cal.4th 1112, 1123; *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 82; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 1501-51; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1601-02.

<sup>16</sup> CEQA Guidelines § 15384(a).

disagreement among expert opinion supported by facts over the significance of an effect on the environment, the lead agency shall treat the effect as significant and shall prepare an EIR.”<sup>17</sup>

As detailed below, substantial evidence supports a fair argument that the Project may result in significant, unmitigated impacts to air quality, public health, and from hazards and hazardous materials. The City must prepare an EIR that analyzes, discloses, and mitigates these impacts and considers less environmentally damaging alternatives before the Project can be approved.

#### **IV. THE IS/MND FAILS TO ADEQUATELY DESCRIBE THE AMBIENT AIR QUALITY**

An initial study must include a description of the project’s environmental setting.<sup>18</sup> The description of the environmental setting constitutes the baseline physical conditions by which a lead agency may assess the significance of a project’s impacts.<sup>19</sup> “The purpose of this requirement is to give the public and decision makers the most accurate and understandable picture practically possible of the project’s likely near-term and long-term impacts.”<sup>20</sup>

“[P]reparing a Negative Declaration necessarily involves some degree of forecasting. While foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can.”<sup>21</sup> “If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact.”<sup>22</sup> An agency is not allowed to hide behind its own failure to gather relevant data.<sup>23</sup>

The IS/MND provides a summary of annual monitoring data from 2019 to 2021.<sup>24</sup> The data was obtained from a monitoring station located at 2975 Treat Boulevard, Concord, California, approximately 10 miles southwest of the Project

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<sup>17</sup> *Id.* § 15064(g).

<sup>18</sup> *Id.* § 15063(d)(2).

<sup>19</sup> *Id.* § 15125(a); *see also* *Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 38 Cal. 4th 310, 320-21 (CEQA Guidelines § 15125(a) applies to an initial study).

<sup>20</sup> CEQA Guidelines § 15125(a).

<sup>21</sup> *Id.* § 15144 (emphasis added).

<sup>22</sup> *Id.* § 15145 (emphasis added).

<sup>23</sup> *City of Redlands v. County of San Bernardino* (2002) 96 Cal.App.4th 398, 408.

<sup>24</sup> IS/MND at p. 17.

site.<sup>25</sup> This station only measures levels of ozone, particulate matter less than 10 micrometers (“PM<sub>10</sub>”), particulate matter less than 2.5 micrometers (“PM<sub>2.5</sub>”), and nitrogen dioxide (“NO<sub>2</sub>”).<sup>26</sup>

As a threshold matter, the monitoring station in Concord is not representative of the ambient air quality conditions at the Project site. Data from this monitoring station suffers from similar flaws to the meteorological data utilized as part of the Project’s health risk assessment (“HRA”). The HRA relies on meteorological data from the Concord-Buchanan Field Airport monitoring station.<sup>27</sup> As Dr. Fox explains, the airport monitoring station, which is also approximately 10 miles to the southwest of the Project site, has an entirely different wind pattern than monitoring stations which are in closer proximity to the Project site.<sup>28</sup> In addition, the intervening terrain between Pittsburg and Concord creates significant discrepancies between the ambient air quality at Project site and the monitoring stations.

An accurate ambient air quality baseline is critical because air quality can affect the Project’s safe operation. The air separation facility will pull outdoor ambient air into the main compressor.<sup>29</sup> Impurities and contaminants in the air other than nitrogen, oxygen, and argon are filtered out and returned to the air.<sup>30</sup> Nitrogen, oxygen, and argon are then physically separated by operating three internal columns at different pressures and temperature and turned in liquid.<sup>31</sup>

Air contains many trace impurities that can cause plugging, corrosion, or which are reactive, leading to accidents.<sup>32</sup> Many of these contaminants of concern are present at the Project site due to the proximity of the proposed facility to industrial facilities that emit pollutants.<sup>33</sup> Yet the IS/MND fails to disclose the identities or quantities of any potential contaminants present in the ambient air that could potentially impact safe operation of the Project’s air separation facility.<sup>34</sup>

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<sup>25</sup> *Ibid.*

<sup>26</sup> *Ibid.*

<sup>27</sup> *Id.*, appen B. at p. 9.

<sup>28</sup> Fox Comments at pp. 12-14.

<sup>29</sup> Linde, Project Oakstone Northern California Expansion Project: Project Narrative (Jan. 18, 2023) p. 3 (hereinafter “Project Narrative”).

<sup>30</sup> *Ibid.*

<sup>31</sup> *Ibid.*

<sup>32</sup> Fox Comments at pp. 31-34.

<sup>33</sup> *Ibid.*

<sup>34</sup> IS/MND at p. 17.

This significant omission from the IS/MND prevents decisionmakers and the public from understanding the potential operational hazards associated with the proposed Project. The City must prepare an EIR which accurately discloses the ambient air quality to ensure all potential hazards are adequately disclosed, analyzed, and mitigated.

## **V. SUBSTANTIAL EVIDENCE SUPPORTS A FAIR ARGUMENT THAT THE PROJECT'S OPERATIONAL AIR QUALITY IMPACTS ARE SIGNIFICANT**

The IS/MND concludes operational air quality impacts are less than significant.<sup>35</sup> However, the IS/MND fails to analyze indirect air quality impacts from electricity usage. Substantial evidence supports a fair argument that the Project would result in significant air quality impacts when this emission source is considered. Moreover, mitigation measures are available to reduce these significant impacts which must be considered in an EIR.

### **A. The IS/MND Fails to Analyze Indirect Operational Emissions**

The IS/MND concludes operational air quality impacts would be less than significant because criteria air pollutant (“CAP”) emissions from motor vehicles and other minor emission sources such as cleaning chemicals/solvents would not exceed the Bay Area Air Quality Management District (“BAAQMD”) significance thresholds for reactive organic compounds (“ROGs”), nitrogen oxides (“NOx”), PM<sub>10</sub>, and PM<sub>2.5</sub>.<sup>36</sup> However, the IS/MND omits a key emission source of indirect emissions: electricity usage.<sup>37</sup>

The IS/MND discloses that the air separation process will consume significant amounts of electricity.<sup>38</sup> Electricity used to support the Project will be supplied by Pacific Gas & Electric (“PG&E”).<sup>39</sup> As of 2021, 8.9% of power supplied by PG&E originated from natural gas.<sup>40</sup> Gas-fired power plants emit significant amounts of greenhouse gasses (“GHGs”), criteria pollutants, and hazardous air pollutants (“HAPs”).<sup>41</sup>

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<sup>35</sup> *Id.* at p. 22.

<sup>36</sup> *Ibid.*

<sup>37</sup> Fox Comments at pp. 6-9.

<sup>38</sup> IS/MND at p. 8.

<sup>39</sup> *Ibid.*

<sup>40</sup> *Id.*, appen. A, Pacific Gas & Electric Company, 2021 Power Content Label (2021).

<sup>41</sup> Fox Comments at pp. 6-7.

CEQA requires an analysis of indirect effects that are reasonably foreseeable and caused by the project but occur at a different time or place. CEQA Guidelines § 15064 states: “An indirect physical change in the environment is a physical change ... which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect change in the environment.” Indirect or secondary effects may include related effects on air.<sup>42</sup>

Here, the IS/MND fails to analyze whether CAP emissions associated with the Project’s electricity usage are significant. The air quality model used to estimate emissions does not include CAP emissions from electricity supplied to the Project.<sup>43</sup> Nor are CAP emissions from electricity usage estimated in the IS/MND.<sup>44</sup> This is a major omission in the City’s air quality analysis.

Indirect emissions from the Project’s electricity usage are reasonably foreseeable and quantifiable. This is demonstrated by the IS/MND’s detailed discussion of the Project’s GHG emissions generated by electricity usage. The IS/MND acknowledges that long-term operational GHG emissions would be generated by electricity consumption, mobile sources, and water/wastewater conveyance.<sup>45</sup> It then estimates GHG emissions for electricity usage by multiplying the amount of CO<sub>2e</sub> per megawatt hour generated by the mix of PG&E-owned generation and power purchases by the Project’s annual electricity demand.<sup>46</sup> The City could have, but did not, conduct a similar analysis for ROG<sub>s</sub>, NO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub>.

CEQA requires the City to analyze whether the Project would result in violations of air quality standards and thresholds, including whether the Project would result in a net increase of non-attainment criteria pollutants.<sup>47</sup> Because the IS/MND fails to analyze indirect operational CAP emissions, the City lacks substantial evidence to support the conclusion that operational air quality impacts are less than significant. The City must prepare an EIR that discloses, analyzes, and mitigates the Project’s potentially significant operational air quality impacts.

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<sup>42</sup> CEQA Guidelines § 15358(a)(2).

<sup>43</sup> See generally IS/MND, appen A.

<sup>44</sup> *Id.* at p. 22.

<sup>45</sup> *Id.* at p. 52.

<sup>46</sup> *Ibid.*

<sup>47</sup> CEQA Appendix G, Section III(a)-(c).



## **B. Substantial Evidence Supports a Fair Argument that the Project's Operational Emissions Are Significant**

When air pollutant emissions from the Project's electricity usage are calculated, the impact is significant.<sup>48</sup> For example, NO<sub>x</sub> and ROG emissions from gas-fired sources supplying electricity to the Project would exceed the applicable significance thresholds.<sup>49</sup>

Dr. Fox estimates electricity usage emissions by using the power mix information contained in PG&E's 2021 Power Content Label,<sup>50</sup> which the IS/MND relies upon to estimate GHG emissions.<sup>51</sup> Dr. Fox calculates that electricity usage during the first year of Project operation would generate approximately 219 pounds per hour for both NO<sub>x</sub> and ROGs.<sup>52</sup> This far exceeds the BAAQMD threshold of 54 pounds per day for these pollutants.<sup>53</sup>

Moreover, even as the amount of natural gas decreases from PG&E's portfolio, NO<sub>x</sub> and ROG emissions will remain significant.<sup>54</sup> Dr. Fox estimates that electricity usage during the seventh year of operation would generate approximately 90 pounds per hour for both NO<sub>x</sub> and ROGs, assuming the amount of natural gas in PG&E's portfolio decreases by a factor of 10.<sup>55</sup> Again, this far exceeds the BAAQMD threshold of 54 pounds per day for these pollutants.

Dr. Fox also estimates electricity usage emission using PG&E's more recent 2022 Power Content Label.<sup>56</sup> Dr. Fox concludes that electricity usage during the first year of Project operation would generate approximately 118 pounds per hour for both NO<sub>x</sub> and ROGs based on the updated power mix.<sup>57</sup> Again, this far exceeds the BAAQMD threshold of 54 pounds per day for these pollutants.

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<sup>48</sup> Fox Comments at pp. 7-9.

<sup>49</sup> *Ibid.*

<sup>50</sup> *Id.* at pp. 8-9.

<sup>51</sup> *Ibid.*

<sup>52</sup> *Ibid.*

<sup>53</sup> Bay Area Air Quality Management District, California Environmental Quality Act: Air Quality Guidelines (Apr. 20, 2023) p. 3-4 (hereinafter "BAAQMD CEQA Guidelines"), *available at* [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-3-thresholds\\_final\\_v2-pdf.pdf?rev=a976830cce0c4a6bb624b020f72d25b3&sc\\_lang=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-3-thresholds_final_v2-pdf.pdf?rev=a976830cce0c4a6bb624b020f72d25b3&sc_lang=en).

<sup>54</sup> Fox Comments at p. 9.

<sup>55</sup> *Ibid.*

<sup>56</sup> *Ibid.*

<sup>57</sup> *Ibid.*

Dr. Fox's comments constitute substantial evidence in support of a fair argument that the Project's operational emissions are significant and unmitigated. Therefore, the City must prepare an EIR that discloses, analyzes, and mitigates the Project's significant NOx and ROG emissions.

### **C. Mitigation Measures Are Available to Reduce Significant NOx and ROG Emissions**

Even though NOx and ROG emissions are primarily due to electricity generated by gas-fired power plants that are not owned by the Applicant, on-site or off-site mitigation at other sources can be used to reduce significant emissions from electricity usage.<sup>58</sup> For example, Dr. Fox recommends adopting a voluntary emission reduction agreement ("VERA").<sup>59</sup> With a VERA, a project proponent provides pound-for-pound mitigation of air emission increases through a process that funds and implements emissions reduction projects administered through air district incentive programs.<sup>60</sup> This approach has been found legally sufficient.<sup>61</sup>

The IS/MND could also impose mitigation requiring that the applicant enroll in renewable energy programs offered by PG&E which do not utilize natural gas resources. For example, while not currently active, PG&E previously offered customers the option to enroll in the Solar Choice program, allowing customers to elect to purchase solar energy to match either 50% or 100% of their energy use.<sup>62</sup> If a customer is enrolled in the 100% Solar Choice program, then 0% of their electricity would be supplied by gas-fired power plants.<sup>63</sup>

The City must prepare an EIR which analyzes the feasibility of implementing these mitigation measures to reduce significant operational air quality impacts.

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<sup>58</sup> *Id.* at p. 10.

<sup>59</sup> *Ibid.*

<sup>60</sup> *Ibid.*

<sup>61</sup> *California Building Industry Assn. v. San Joaquin Valley APCD*, Fresno County Case No. 06 CECG 02100 DS13; *National Association of Home Builders v. San Joaquin Valley Unified Air Pollution Control District*; Federal District Court, Eastern District of California, Case No. 1:07-CV-00820-LJO-DLB; and *Center for Biological Diversity et al. v Kern County*, Fifth Appellate District, Case No. F061908.

<sup>62</sup> Pacific Gas & Electric, Community Renewable Programs, Solar Choice, <https://www.pge.com/en/clean-energy/solar/community-renewable-programs.html> (last visited Feb. 27, 2024).

<sup>63</sup> IS/MND, appen. A, Pacific Gas & Electric Company, 2021 Power Content Label (2021).

## VI. SUBSTANTIAL EVIDENCE SUPPORTS A FAIR ARGUMENT THAT HEALTH RISKS FROM DIESEL PARTICULATE MATTER EMISSIONS ARE SIGNIFICANT

The IS/MND concludes the Project's health risks are less than significant.<sup>64</sup> The IS/MND basis its conclusion on a HRA which evaluates potential health risks associated with exposure of toxic air contaminants ("TACs"), including diesel particulate matter ("DPM"), generated during Project construction and operation.<sup>65</sup>

TACs are generally evaluated by separating them into carcinogens and noncarcinogens based on the nature of the physiological effects associated with exposure to the pollutant.<sup>66</sup> Cancer risk is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure.<sup>67</sup> Carcinogenic substances differ in that reference exposure levels ("RELs") have been developed to determine the level of exposure below which no adverse health impacts is believed to occur.<sup>68</sup> Acute and chronic exposure to noncarcinogens is expressed as a hazard index, which is the ratio of expected exposure levels to an acceptable REL.<sup>69</sup>

BAAQMD has established project-level thresholds to address the potential for an individual project to significantly elevate existing risks or hazards.<sup>70</sup> A project will have a cumulatively considerable impact if it results in (1) an excess cancer risk level of more than 10 in a million or (2) a non-cancer hazard index greater than 1.0 (acute or chronic).<sup>71</sup> Based on the results of the HRA, the IS/MND concludes that the Project would not expose nearby sensitive receptors to significant health risks.<sup>72</sup>

However, the HRA suffers from a fatal flaw by relying on meteorological data that is not representative of the Project site. As a result, the HRA severely underestimates health risk impact. Therefore, the City lacks substantial evidence to conclude health risk impacts are less than significant. When representative meteorological data is utilized, substantial evidence supports a fair argument that

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<sup>64</sup> IS/MND at p. 23.

<sup>65</sup> IS/MND at p. 23; *id.*, appen. B.

<sup>66</sup> BAAQMD CEQA Guidelines at p. 5-12, *available at* [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-5-project-air-quality-impacts\\_final-pdf.pdf?rev=de582fe349e545989239cbbc0d62c37a](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa-guidelines-2022/ceqa-guidelines-chapter-5-project-air-quality-impacts_final-pdf.pdf?rev=de582fe349e545989239cbbc0d62c37a).

<sup>67</sup> *Ibid.*

<sup>68</sup> *Ibid.*

<sup>69</sup> *Ibid.*

<sup>70</sup> *Id.* at p. 5-14.

<sup>71</sup> *Ibid.*

<sup>72</sup> IS/MND at p. 24.

construction DPM emissions would expose nearby sensitive receptors and construction workers to significant, unmitigated health risks.

**A. The IS/MND Lacks Substantial Evidence to Conclude Health Risks Are Less Than Significant Because It Relies on Clearly Erroneous Meteorological Data**

Meteorology (e.g., prevailing wind direction) plays an important role in determining the downwind concentration and the location of the greatest affected receptor.<sup>73</sup> Refined models use measured meteorological data collected from stations to simulate the transport and dispersion of air pollutants.<sup>74</sup> The most appropriate meteorological station for a project matches the meteorological conditions (wind speeds and directions), terrain, and surrounding land use of the project.<sup>75</sup>

The HRA relies on metrological data from the Concord-Buchanan Field Airport monitoring station, which is approximately 10 miles away from the Project site.<sup>76</sup> It explains that this station was “selected as being the most representative meteorology based on proximity.”<sup>77</sup> This is wholly inaccurate.

BAAQMD maintains AEROMOD-ready meteorological data sets for 35 sites in the Bay Area.<sup>78</sup> Three of these stations are closer to the Project site than the airport monitoring station.<sup>79</sup> In fact, the closest monitoring station at Dow Chemical is in the City, approximately 1.1 miles from the Project site.<sup>80</sup> Despite the availability meteorological data from multiple monitoring stations that are in closer proximity to the Project site, the HRA selected a monitoring station over 10 miles away with an entirely different wind pattern.<sup>81</sup>

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<sup>73</sup> Bay Area Air Quality Management District, Air Quality Guidelines Appendix E: Recommended Methods for Screening and Modeling Local Risks and Hazards (2022) p. E-35 (hereinafter “BAAQMD HRA Guidelines”), available at [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa-guidelines-2022/appendix-e-recommended-methods-for-screening-and-modeling-local-risks-and-hazards\\_final-pdf.pdf?rev=b8917a27345a4a629fc18fc8650951e4&sc\\_lang=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa-guidelines-2022/appendix-e-recommended-methods-for-screening-and-modeling-local-risks-and-hazards_final-pdf.pdf?rev=b8917a27345a4a629fc18fc8650951e4&sc_lang=en).

<sup>74</sup> *Id.* at p. E-37.

<sup>75</sup> *Id.* at p. E-38.

<sup>76</sup> IS/MND, appen. B at p. 9.

<sup>77</sup> *Ibid.*

<sup>78</sup> BAAQMD HRA Guidelines at p. E-37; *see also* Bay Area Air Quality Management District, AERMOD-Ready Meteorological Data, <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools/ceqa-modeling-data> (last updated Nov. 15, 2022).

<sup>79</sup> Fox Comments at p. 12.

<sup>80</sup> *Ibid.*

<sup>81</sup> *Id.* at pp. 12-14.

BAAQMD recommends that HRAs note any differences or similarities in terrain elevation between the project and the meteorological sites, especially if there are any barriers separating the two locations.<sup>82</sup> But the HRA does not to explain the significant differences in terrain elevation or land uses between the Project site and the airport monitoring station, including an intervening mountain range.<sup>83</sup> When there are significant differences in terrain elevation or land use between the project and the closest meteorological tower, BAAQMD recommends that the air dispersion model be run multiple times using meteorological data from all nearby stations.<sup>84</sup> The HRA uses only one monitoring station, over 10 miles away from the Project site with entirely different meteorological conditions, terrain, and surrounding land uses, thus failing to provide accurate data or follow the feasible methodology recommended by BAAQMD.<sup>85</sup>

Substantial evidence means “enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached.”<sup>86</sup> Substantial evidence includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts,<sup>87</sup> but it does not include argument, speculation, unsubstantiated opinion or narrative, *evidence which is clearly erroneous or inaccurate*, or evidence of social or economic impacts which do not contribute to or are not caused by physical impacts on the environment.<sup>88</sup>

Because the HRA used meteorological data that is not representative of the Project site, the HRA severely underestimates the Project’s health risks.<sup>89</sup> As a result, the IS/MND lacks substantial evidence to support its finding that the Project’s health risks are less than significant. The City must prepare an EIR that discloses, analyzes, and mitigates the Project’s significant health risks.

### **B. Substantial Evidence Supports a Fair Argument that Cancer Risks from Construction DPM Emissions Are Significant**

A revised HRA was developed using BAAQMD meteorological data from the Dow Chemical monitoring station, with all other assumptions remaining the same

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<sup>82</sup> BAAQMD HRA Guidelines at p. E-38.

<sup>83</sup> Fox Comments at p. 12.

<sup>84</sup> BAAQMD HRA Guidelines at p. E-38.

<sup>85</sup> Fox Comments at p. 12-14.

<sup>86</sup> CEQA Guidelines § 15384(a).

<sup>87</sup> *Id.* § 15384(b).

<sup>88</sup> *Id.* § 15384(a) (emphasis added).

<sup>89</sup> Fox Comments at pp. 11-23.

as those in the HRA prepared for the IS/MND.<sup>90</sup> Dr. Fox analyzed the impact of increased cancer risk on nearby receptors caused by exposure to DPM emissions during Project construction.<sup>91</sup> Based on the results of the revised HRA, Dr. Fox concludes that the 2-year construction cancer risk exceeds BAAQMD's threshold of 10 at several off-site locations, including:

- Diamond Hillside Apartments (20.2 cancers per million);
- Edgewater Apartments (17.7 cancers per million);
- Martin Luther King Jr. Junior High School (11 cancers per million); and
- Delta Oaks Presbyterian Church.<sup>92</sup>

Because the cancer risk is significant, Dr. Fox recommends implementation of Tier 4 Final construction equipment to mitigate construction DPM emissions.<sup>93</sup>

Dr. Fox's comments constitute substantial evidence in support of a fair argument that the proposed Project would have a significant cancer risk impact. As a result, the City must prepare an EIR which discloses, analyzes, and mitigates the Project's significant impact.

### **C. Substantial Evidence Supports a Fair Argument that Chronic Hazard Risks from Construction DPM Emissions Are Significant**

Dr. Fox analyzed the impact of increased chronic non-carcinogenic health impacts on nearby receptors caused by exposure to DPM emissions during Project construction.<sup>94</sup> Based on the results of the revised HRA, Dr. Fox concludes that the chronic non-carcinogenic hazard impact exceeds BAAQMD's threshold of 1.0 over a large area surrounding the Project site, including at nearby commercial areas which contain off-site workers.<sup>95</sup> Because the chronic non-cancer risk is significant, Dr. Fox recommends implementation of Tier 4 Final construction equipment to mitigate construction DPM emissions.<sup>96</sup>

Dr. Fox's comments constitute substantial evidence in support of a fair argument that the proposed Project would have a significant chronic health risk impact. As a result, the City must prepare an EIR which discloses, analyzes, and mitigates the Project's significant impact.

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<sup>90</sup> *Id.* at pp. 15-23.

<sup>91</sup> *Id.* at pp. 15-18.

<sup>92</sup> *Id.* at pp. 15-18.

<sup>93</sup> *Id.* at p. 17.

<sup>94</sup> *Id.* at p. 19.

<sup>95</sup> *Ibid.*

<sup>96</sup> *Ibid.*

#### **D. The IS/MND Fails to Analyze Acute Hazard Risks from Construction DPM Emissions**

An initial study must be prepared with a sufficient degree of analysis to provide decisionmakers with the information needed to make an intelligent judgment concerning a project's environmental impacts.<sup>97</sup> An EIR should provide a reasonable, good faith disclosure and analysis of the project's environmental impacts.<sup>98</sup> An impact analysis may be based on informed judgments by experts.<sup>99</sup>

While the IS/MND discusses chronic non-carcinogenic hazard impacts, it does not discuss or analyze acute non-carcinogenic hazard impacts.<sup>100</sup> In fact, the Staff Report admits that "acute DPM impacts were not evaluated in the Health Risk Assessment and IS/MND."<sup>101</sup> Diesel exhaust can have immediate (acute) health effects, including inflammation of the lungs.<sup>102</sup> The IS/MND does not explain why acute hazard impacts of DPM emissions are not assessed, but the Staff Report argues that an acute analysis is not required because the California Office of Environmental Health Hazard Assessment ("OEHHA") does not have an acute REL for diesel exhaust.<sup>103</sup> The lack of an acute REL published by OEHHA does not relieve City from its obligation to evaluate the Project's impacts.<sup>104</sup> If evidence is submitted tending to show that the environmental impact may be significant despite a significance standard, the agency must address that evidence.<sup>105</sup>

OEHHA last evaluated the health impacts of DPM in 1998.<sup>106</sup> Since that time, substantial additional research has been conducted on acute health impacts of DPM.<sup>107</sup> Although the California agencies have not established an acute REL for

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<sup>97</sup> CEQA Guidelines § 15151; *Napa Citizens for Honest Gov't v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 356.

<sup>98</sup> *Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal* (1988) 47 Cal.3d 376, 392.

<sup>99</sup> *Banning Ranch Conservancy v. City of Newport Beach* (2012) 211 Cal.App.4th 1209, 1233.

<sup>100</sup> IS/MND at pp. 23-24; *id.*, appen. B at p. 12-13.

<sup>101</sup> Staff Report at p. 8.

<sup>102</sup> Fox Comments at pp. 11-12, 20-23; *see also* Office of Environmental Health Hazard Assessment and The American Lung Association of California, Health Effects of Diesel Exhaust (undated), available at <https://oehha.ca.gov/media/downloads/calenviroscreen/indicators/diesel4-02.pdf>.

<sup>103</sup> Staff Report at p. 13.

<sup>104</sup> CEQA Guidelines § 15064(b)(2).

<sup>105</sup> *Protect the Historic Andor Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1111.

<sup>106</sup> Fox Comments at pp. 20-23.

<sup>107</sup> *Id.* at pp. 20-21.

diesel exhaust, other agencies have.<sup>108</sup> For example, Health Canada has recommended an acute REL of 10 µg/m<sup>3</sup> for diesel exhaust to protect against adverse effects on the respiratory system.<sup>109</sup>

Health Canada is a Canadian federal department responsible for helping Canadians maintain and improve their health.<sup>110</sup> Members of the department's Fuel Assessment Section prepared a report on human health risk assessment for diesel exhaust detailing the justifications for establishing an acute REL for diesel exhaust.<sup>111</sup> In setting an acute REL of 10 µg/m<sup>3</sup>, the authors considered evidence from scientific studies evaluating the impacts of diesel emissions on human health.<sup>112</sup>

Reasonable estimates and assumptions may be used in an impact analysis.<sup>113</sup> The Health Canada report provides substantial evidence to establish an acute REL for DPM impacts and supports a determination about the significance of non-carcinogenic acute hazards associated with construction DPM emissions. Because the IS/MND fails to analyze acute hazard risks from construction DPM emissions, the City lacks substantial evidence to conclude that health risk impacts are less than significant. The City must prepare an EIR that discloses, analyzes, and mitigates the Project's potentially significant acute hazard impacts.

### **E. Substantial Evidence Supports a Fair Argument that Acute Hazard Risks from Construction DPM Emissions Are Significant**

Dr. Fox analyzed the impact of increased acute non-carcinogenic health impacts on nearby receptors caused by exposure to DPM emissions during Project construction.<sup>114</sup> Based on the results of the revised HRA, Dr. Fox concludes that the acute non-carcinogenic hazard impact exceeds BAAQMD's threshold of 1.0 over a large area surrounding the Project site, including nearby schools, residences and commercial areas, when compared to the acute REL recommended by the Canadian

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<sup>108</sup> *Id.* at p. 21.

<sup>109</sup> *Id.* at p. 21; *see also* Health Canada, Human Health Risk Assessment for Diesel Exhaust (Mar. 2016) p. 11 (hereinafter "Health Canada Report"), *available at* [https://publications.gc.ca/collections/collection\\_2016/sc-hc/H129-60-2016-eng.pdf](https://publications.gc.ca/collections/collection_2016/sc-hc/H129-60-2016-eng.pdf).

<sup>110</sup> Health Canada Report at p. i; Government of Canada, About Health Canada, <https://www.canada.ca/en/health-canada/corporate/about-health-canada.html> (last modified Feb. 27, 2014).

<sup>111</sup> *Id.* at pp. 5-11.

<sup>112</sup> *Id.* at p. 11.

<sup>113</sup> *Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 392, 410.

<sup>114</sup> Fox Comments at p. 20-21.



government.<sup>115</sup> Because the acute hazard risk is significant, Dr. Fox recommends implementation of Tier 4 Final construction equipment to mitigate construction DPM emissions.<sup>116</sup>

Dr. Fox's comments constitute substantial evidence in support of a fair argument that the proposed Project would have a significant acute health risk impact. As a result, the City must prepare an EIR which discloses, analyzes, and mitigates the Project's significant impact.

#### **F. The IS/MND Fails to Evaluate the Impacts of Construction DPM Emissions on Construction Workers**

Construction workers have the greatest exposure to construction DPM emissions because they operate and maintain the equipment that emits these harmful pollutants.<sup>117</sup> The IS/MND claims that BAAQMD does not consider on-site workers to be sensitive receptors because all employers must follow Occupational Safety and Health Administration ("OSHA") regulations.<sup>118</sup> The Staff Report reiterates this assertion.<sup>119</sup> Neither the IS/MND, nor the Staff Report provide any citation in support of this assertion. In any event, BAAQMD does not state that on-site workers should not be classified as sensitive receptors. Outdated guidance states that BAAQMD's methodology for screening and modeling local risks and hazards does not address on-site worker exposures based on the assumption that OSHA regulations ensure the health and well-being of the on-site workforce.<sup>120</sup>

However, OSHA does not regulate worker exposure to DPM.<sup>121</sup> While OSHA has permissible exposure limits ("PELs") for some components of diesel exhaust, it does not have a permissible exposure limit for diesel exhaust.<sup>122</sup> Similarly,

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<sup>115</sup> *Id.* at p. 21.

<sup>116</sup> *Id.* at p. 17.

<sup>117</sup> *Id.* at p. 21.

<sup>118</sup> IS/MND at p. 19.

<sup>119</sup> Staff Report at p. 8.

<sup>120</sup> Bay Area Air Quality Management District, Recommended Methods for Screening and Modeling Local Risks and Hazards (May 2011) p. 12, available at <https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/baaqmd-modeling-approach.pdf>.

<sup>121</sup> Occupational Safety and Health Administration, Diesel Exhaust, <https://www.osha.gov/diesel-exhaust> (last visited Feb. 26, 2024).

<sup>122</sup> Occupational Safety and Health Administration, Hazard Alert: Diesel Exhaust/Diesel Particulate Matter (Jan. 2013), available at <https://www.osha.gov/sites/default/files/publications/OSHA-3590.pdf>; Occupational Safety and Health Administration, Diesel Exhaust, <https://www.osha.gov/diesel-exhaust> (last visited Jan. 10, 2024) ("OSHA has not established a standard for diesel exhaust as a unique hazard, however exposure to various components for diesel exhaust are addressed in specific OSHA standards for general industry").

California's Division of Occupational Health and Safety ("CalOSHA") does not regulate worker exposure to DPM.<sup>123</sup> While CalOSHA has PELs for some components of diesel exhaust, there is no PEL "either for diesel exhaust itself, or for the tiny particles that are probably the most important part of diesel exhaust."<sup>124</sup>

In the absence of OSHA regulations, the California Department of Public Health's Hazard Evaluation System and Information Service ("HESIS") recommends that workplace exposure not exceed 20 µg/m<sup>3</sup> of diesel exhaust particles.<sup>125</sup> HESIS's recommendation is based on the diesel exhaust risk assessment performed by OEHHA.<sup>126</sup> It is also consistent with the recommendations made by the American Conference of Governmental Industrial Hygienists.<sup>127</sup> HESIS's recommendation constitutes substantial evidence to establish an acute REL for acceptable workplace exposure to diesel exhaust, and supports a determination about the significance of DPM emissions on construction workers.

Because the IS/MND fails to evaluate the impacts of construction DPM emissions on construction workers, the City lacks substantial evidence to conclude that the health risks are less than significant. The City must prepare an EIR which discloses, analyzes, and mitigates the Project's significant health risks.

### **G. Substantial Evidence Supports a Fair Argument that Acute Hazard Risks for Construction Workers from Construction DPM Emissions Are Significant**

The revised HRA demonstrates that all on-site workers would be exposed to more than 50 µg/m<sup>3</sup> of diesel exhaust particles during Project construction.<sup>128</sup> Therefore, the acute non-carcinogenic hazard impacts to all on-site construction workers are at least 2.5,<sup>129</sup> which exceed BAAQMD's threshold of 1.0. Even if the BAAQMD threshold does not apply, as the Staff Report claims,<sup>130</sup> the revised HRA

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<sup>123</sup> Hazard Evaluation System & Information Service, Diesel Engine Exhaust (Nov. 2002) p. 4 (hereinafter "HESIS Diesel Engine Exhaust"), available at <https://www.cdph.ca.gov/Programs/CCDC/DEOD/CEH/HEH/CDPH%20Document%20Library/diesel.pdf>

<sup>124</sup> *Ibid.*

<sup>125</sup> *Ibid.*; see also California Air Resources Board, Staff Report: Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant (June 1998) appen. B, available at <https://ww2.arb.ca.gov/sites/default/files/classic/toxics/dieseltac/staffrpt.pdf>.

<sup>126</sup> HESIS Diesel Engine Exhaust at p. 4.

<sup>127</sup> *Ibid.*

<sup>128</sup> Fox Comments at pp. 20-23.

<sup>129</sup> 50 µg/m<sup>3</sup> (acute exposure) divided by 20 µg/m<sup>3</sup> (REL) = 2.5 hazard index.

<sup>130</sup> Staff Report at p. 8.

demonstrates that all on-site workers would be exposed to acute concentrations of diesel exhaust particles in amounts that exceed the workplace exposure limit recommended by HESIS.<sup>131</sup> Therefore, Dr. Fox's comments constitute substantial evidence in support of a fair argument that the proposed Project would have a significant acute health risk impact to construction workers. As a result, the City must prepare an EIR which discloses, analyzes, and mitigates the Project's significant impact.

## **VII. SUBSTANTIAL EVIDENCE SUPPORTS A FAIR ARGUMENT THAT IMPACTS FROM OPERATIONAL HAZARDS AND HAZARDOUS MATERIALS ARE SIGNIFICANT**

The IS/MND concludes the Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.<sup>132</sup> The IS/MND also concludes that the Project would not create a significant hazard to the public or the environment through a reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.<sup>133</sup> However, the IS/MND provides only a conclusory discussion of potential hazard impacts and fails to disclose or analyze several operational hazards. As discussed below, there is substantial evidence supporting a fair argument that operational hazards are significant, and mitigation measures are available to reduce these impacts.

### **A. The IS /MND Fails to Analyze Operational Hazards**

Air separation plants present potential hazards to both on-site workers and off-site parties.<sup>134</sup> These hazards include electricity, gasses under pressure, very low temperatures, the ability of oxygen to accelerate combustion, ambient air quality, the asphyxiant properties of nitrogen, argon and other rare gases, and the harmful effects of breathing high concentrations of oxygen.<sup>135</sup> Dr. Fox details the risks and consequences posed by operation of air separation facilities.<sup>136</sup>

The IS/MND is silent with respect to these risks and the measures that will be implemented to protect on-site workers, nearby members of the public (including residents and students), and the environment.<sup>137</sup> In fact, the IS/MND does not

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<sup>131</sup> HESIS Diesel Engine Exhaust at p. 4.

<sup>132</sup> IS/MND at p. 57.

<sup>133</sup> *Ibid.*

<sup>134</sup> Fox Comments at pp. 23-37.

<sup>135</sup> *Id.* at pp. 23-24.

<sup>136</sup> *Id.* at pp. 24-25.

<sup>137</sup> *Id.* at p. 26-29.

include a hazard and operations (“HAZOP”) analysis.<sup>138</sup> A HAZOP is a formal structured process that ensures all aspects of a plant are addressed.<sup>139</sup> The Asia Industrial Gases Association explains:

Air separation plant safety begins with a safety evaluation of the proposed plant site and the surrounding area. Generally, air separation plants are located in or near industrial areas as an adjunct to other industrial or chemical plants. A quantified risk assessment should be performed when plants are sited in proximity of hydrocarbon, corrosive, toxic, or other hazardous chemical sources. A plant installation should conform to the applicable industry consensus standards and shall adhere to all applicable local, state, provincial/territorial, and federal regulations. The plant operation should be reviewed for compatibility with the surrounding area. For example, the potential hazard of the cooling tower plume or cryogenic fog to nearby plants or vehicular traffic should be recognized. Adequate space should be provided for cryogenic liquid disposal.<sup>140</sup>

Because the IS/MND fails to disclose and analyze all operational hazards, the City lacks substantial evidence to conclude hazard impacts are less than significant. The City must prepare an EIR which discloses, analyzes, and mitigates operational hazards impacts.

### **B. The IS /MND Fails to Analyze the Impact of Potential Air Contaminants on Safe Operation**

As discussed in Section IV, an accurate air quality baseline is critical to the assessment of the Project’s operational impacts because the air separation facility will convert ambient air into liquefied oxygen, nitrogen, and argon. Because the IS/MND does not disclose the identity or quantity of contaminants in the air around the Project site, it also fails to analyze the impact of air quality on Project operations.<sup>141</sup> The AIGA explains why an initial and ongoing assessment of ambient air quality is critical to safe operation of air separation facilities:

Air quality can have an impact on the air separation plant site selection and shall be evaluated. The air separation plant typically is located in an

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<sup>138</sup> *Id.* at p. 27.

<sup>139</sup> *Id.* at p. 27-28.

<sup>140</sup> Asia Industrial Gases Association, Safe Practices Guide for Cryogenic Air Separation Plants (2013) p. 10 (hereinafter “AIGA Safe Practices Guide”), available at [https://www.asiaiga.org/uploaded\\_docs/en\\_AIGA\\_056\\_23\\_Safe\\_Practice\\_Guide\\_for\\_Cryogenic\\_Air\\_Separation\\_Plants\\_Clean\\_Copy\\_10\\_Aug\\_2023.pdf](https://www.asiaiga.org/uploaded_docs/en_AIGA_056_23_Safe_Practice_Guide_for_Cryogenic_Air_Separation_Plants_Clean_Copy_10_Aug_2023.pdf).

<sup>141</sup> Fox Comments at pp. 31-34.

industrial area and thus a degree of contamination released from industrial and/or chemical plant operations can be expected to be present in the air. Trace contaminants in the atmospheric air, particularly hydrocarbons, have a direct bearing on the safe operation of an air separation plant. It is important to identify these contaminants and their levels of concentration in the atmospheric air. Short-term air quality analyses are not representative of long-term air contaminant levels. Changing site conditions can have an impact on air quality and should be evaluated periodically or when the surrounding industries change.<sup>142</sup>

Given that the proposed Project would operate in an industrial area, air contaminants can reasonably be expected in the air intake.<sup>143</sup> Trace contaminants in the air intake can cause problems in air separation units, including plugging, undesired reactions, or corrosion.<sup>144</sup> Yet, as discussed above, the IS/MND is silent with respect to the composition of the ambient air that would be processed in the facility and whether the facility is designed to remove all potential contaminants from the processed air.<sup>145</sup>

Because the IS/MND fails to evaluate the existing ambient air quality and its potential adverse impacts on operation of the Project, the City lacks substantial evidence to conclude that impacts are less than significant. The City must prepare an EIR that discloses, analyzes, and mitigates potentially significant hazard impacts.

### **C. Substantial Evidence Supports a Fair Argument that Ambient Air Contaminants Could Affect Safe Operation**

The IS/MND states that accidental release would be rare, and products of the air separation process do not pose a significant hazard to the public.<sup>146</sup> However, as discussed in Section IV, trace contaminants in the ambient air around the Project site could result in undesirable consequences.<sup>147</sup> In fact, Dr. Fox identified several catastrophic explosions that occurred at air separation plants in recent years.<sup>148</sup> For example, an explosion which injured 12 people at an air separation plant in Malaysia was determined to have been caused by hydrocarbons infiltrating past the

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<sup>142</sup> AIGA Safe Practices Guide at p. 13.

<sup>143</sup> Fox Comments at pp. 32-33; *see also* AIGA Safe Practices Guide at p. 13-14.

<sup>144</sup> Fox Comments at pp. 31, 33.

<sup>145</sup> *Id.* at pp. 31-33.

<sup>146</sup> IS/MND at p. 57.

<sup>147</sup> Fox Comments at pp. 31-34.

<sup>148</sup> IS/MND at p. 57.

air purification system.<sup>149</sup> The hydrocarbon release stemmed from nearby forest fires.<sup>150</sup> The proposed Project could be subject to similar hazards given the recent number of wildfires which have recently occurred in the area.<sup>151</sup>

The IS/MND fails to discuss or analyze the potentially significant impacts to workers, nearby residents, members of the public, and the environment should an accident occur. The City must prepare an EIR which discloses, analyzes, and mitigates impacts from potential air contaminants.

#### **D. Feasible Mitigation Measures Are Available to Reduce the Risk of Accidents**

Dr. Fox recommends that the proposed Project be designed and operated in a manner that minimizes the risk of accidents.<sup>152</sup> Dr. Fox identifies several important safety features which are not mentioned, let alone evaluated, in the IS/MND:

- Analysis of CO<sub>2</sub> at the PPU exit to verify proper operation;
- Measure LOX purge  $\geq 0.2\%$  of the air to ensure no contaminant buildup in the reboiler sump;
- Analysis of hydrocarbons to assure  $< 450$  ppm as C<sub>1</sub> equivalent to ensure no hydrocarbon building in reboiler sump;
- Batch analysis to verify that each component is present at acceptable level;
- Periodic defrost to remove trace components from low flow areas; and
- Downflow reboiler exist CO<sub>2</sub> concentration  $< 6\%$  solubility to ensure CO<sub>2</sub> and N<sub>2</sub>O do not accumulate at too high of a rate.<sup>153</sup>

Dr. Fox also recommends several protective measures for on-site workers during Project operation to reduce impacts caused by accidents.<sup>154</sup> The City must prepare an EIR that analyzes the feasibility of the recommended mitigation measures to reduce significant hazard impacts.

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<sup>149</sup> Fox Comments at pp. 29-30.

<sup>150</sup> *Id.* at p. 29.

<sup>151</sup> *Id.* at pp. 30-33.

<sup>152</sup> Fox Comments at p. 35.

<sup>153</sup> *Ibid.*

<sup>154</sup> *Ibid.*

### **E. The IS/MND Fails to Analyze the Hazards Impacts from Loading and Transportation of Liquefied Products**

The IS/MND concludes that the Project would not create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials because the end-products of the separation process are transported offsite in a stable state by specially designed trucks that operate in accordance with Federal and State regulations.<sup>155</sup> The IS/MND claims that an accidental release during transportation would be rare, but if one did occur, it would be managed locally and contained at the site by emergency response teams.<sup>156</sup> This conclusory discussion is inadequate because it fails to disclose and analyze potential impacts with loading or unloading the transport vehicles or from accidents that occur enroute.

As Dr. Fox explains, accidents have occurred during the filling and transport of gases.<sup>157</sup> For example, in 2019, a major uncontrolled release of high-pressure hydrogen occurred during the fill of a trailer.<sup>158</sup> In response, the transporter was required to implement improved training and retraining of drivers, improved trailer filling procedures, and equipment evaluations and modifications.<sup>159</sup> The IS/MND fails to demonstrate, based upon substantial evidence, how compliance with existing regulations reduce impacts to less than significant.

Because the IS/MND fails to evaluate the hazards associated with loading, unloading, and transportation of liquefied oxygen, nitrogen, and argon, the City lacks substantial evidence to conclude hazard impacts are less than significant. The City must prepare an EIR which discloses, analyzes, and mitigates the Project's potentially significant hazard impacts.

## **VIII. THE PLANNING COMMISSION CANNOT MAKE THE REQUIRED USE PERMIT FINDINGS**

A use permit may be granted only if the Planning Commission can make findings that the proposed use:

- Is in accord with the objective of this title, the purposes of the land use district in which it is located and is appropriate to the specific location;

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<sup>155</sup> IS/MND at p. 57.

<sup>156</sup> *Ibid.*

<sup>157</sup> Fox Comments at p. 35-37.

<sup>158</sup> *Id.* at p. 36.

<sup>159</sup> *Id.* at p. 36-37.

- Is not detrimental to the health, safety, and general welfare of the city;
- Will not adversely affect the orderly development of property within the city;
- Will not adversely affect the preservation of property values and the protection of the tax base and other substantial revenues within the city;
- Is consistent with the objectives, policies, general land uses and programs specified in the general plan and applicable specific plan;
- Will not create a nuisance or enforcement problem within the neighborhood;
- Will not encourage marginal development within the neighborhood;
- Will not create a demand for public services within the city beyond that of the ability of the city to meet in the light of taxation and spending restraints imposed by law;
- Is consistent with the city's approved funding priorities; and
- If located in a commercial (CP) district, will support the goals of creating a vibrant, economically prosperous, visually interesting, and engaging pedestrian oriented atmosphere along the primary downtown corridor.<sup>160</sup>

As discussed in Sections V-VII, Dr. Fox identified several significant air quality and hazards impacts. If left unmitigated, the proposed Project would be detrimental to the health, safety, and general welfare of workers, residents, and students. In sum, the construction of the Project would pose a significant cancer and hazard risk due to DPM emissions.<sup>161</sup> Operation of the Project would pose significant hazards, including the potential for catastrophic accidents.<sup>162</sup> Until these significant impacts are mitigated, the Planning Commission cannot find that the proposed Project is not detrimental to the health, safety, and general welfare of the city. Therefore, the Planning Commission should continue the public hearing and direct City staff to prepare an EIR that discloses, analyzes, and mitigates the Project's significant impacts.

## IX. CONCLUSION

There is substantial evidence supporting a fair argument that the Project may result in significant, unmitigated impacts to public health and air quality, and from hazards and hazardous materials. The Planning Commission should continue the public hearing and direct City staff to prepare an EIR that discloses, analyzes, and mitigates the Project's significant environmental impacts.

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<sup>160</sup> Pittsburgh Municipal Code § 18.16.040.

<sup>161</sup> Fox Comments at pp. 11-23.

<sup>162</sup> *Id.* at pp. 23-37.



February 27, 2024  
Page 25

Thank you for your consideration of these comments.

Sincerely,



Andrew J. Graf

AJG:ljl