BAY AREA AIR DISTRICT
CEQA FINDINGS, SUPPORTING FACTS, AND
STATEMENT OF OVERRIDING CONSIDERATIONS
FOR APPLIED MATERIALS BUILDING 100 EPIC CENTER SEMICONDUCTOR RESEARCH AND DEVELOPMENT LABORATORY PROJECT

The City of Sunnyvale (City) acted as Lead Agency under the California Environmental Quality Act (CEQA) for the Arques Campus Specific Plan, certifying the Arques Campus Specific Plan Environmental Impact Report in June 1999 (1999 Arques EIR), as modified by the 2024 Addendum, CEQA State Clearinghouse Number 1998092072. Applied Materials, Inc. (Applied Materials) has submitted Application No. 700650 to the Bay Area Air Quality Management District (Air District) for an Authority to Construct and Permit to Operate for two new permitted stationary sources at its Arques Campus (Project).

As a Responsible Agency under CEQA, the Air District has discretionary approval over the Project through its permitting authority under Health and Safety Code Section 40000 *et seq.* and Air District Regulation 2. The Air District determined through its evaluation of Application No. 700650 that the conditions described in CEQA Guidelines Sections 15162(a)(2) and (3) are met and that the 1999 Arques EIR is not adequate to support the Air District's permit review without supplementation. Pursuant to CEQA Guidelines Section 15163(a), which provides that a Responsible Agency may choose to prepare a supplement to an EIR, the Air District prepared a Supplemental Environmental Impact Report (SEIR) addressing Air Quality and Greenhouse Gas Emissions only. These findings are made in connection with the Air District's consideration of Application No. 700650.

Project Description

The permit would authorize two new permitted air emissions sources at the Applied Materials Arques Campus at 974 East Arques Avenue in the City of Sunnyvale, Santa Clara County (Air District Facility ID 11002):

Source S-264, B100 Semiconductor Research and Development Laboratory. A cleanroom laboratory containing dry process tools, consisting of vacuum deposition and plasma etching chambers, and wet process tools, consisting of batch tools, manual wet bench tools, and single wafer tools. Emissions are controlled by integral point of use abatement devices at each dry process tool, eight packed bed acid scrubbers, point of use multi-stage wet scrubbers, a two-stage concentrator wheel, and an electric regenerative thermal oxidizer, discharging through nine exhaust stacks.

Source S-265, B100 Surface Preparation (Wipe Cleaning). Use of pre-soaked wipes to clean tool mechanisms and interior tool enclosure surfaces, limited to 900 gallons per year of isopropyl alcohol and 100 gallons per year of acetone.

The sources would be housed in Building 100, the Equipment and Process Innovation and Commercialization (EPIC) Center, a 592,567 gross square foot, three-story research and development building that implements Phase I of the Arques Campus Specific Plan. The building is intended to serve as a collaboration hub for Applied Materials, chipmakers, equipment and materials suppliers, universities, and research institutions, providing laboratory and cleanroom space for research, process development, proof of concept testing, and optimization of semiconductor manufacturing technologies before implementation at commercial fabrication facilities. Applied Materials has stated that it will conduct research and development activities only, with no intention of manufacturing products for commercial sale. The campus would accommodate up to 2,800 employees.

The City approved the building and associated improvements, including a seven-level parking structure, expansion of the existing PG&E substation, a new parallel sanitary sewer pipeline, and related site improvements, in April 2024. The Air District's discretionary action is limited to the air emissions source permits and the conditions under which the permitted sources may be constructed and operated. The Air District cannot alter the location, size, or land use of the building.

The following timeline illustrates the progress of the environmental review to present:

- June 1999 — The City certified the 1999 Arques EIR and adopted the Arques Campus Specific Plan.
- February 13, 2024 — Applied Materials submitted Application No. 700650 to the Air District.
- April 2024 — The City approved an Addendum to the 1999 Arques EIR and LUTE Update EIR, and approved the development that houses the permitted sources.
- October 14, 2026 — The Air District released the Draft SEIR for public review. The comment period began on October 14, 2026 and ended on November 13, 2026.
- November 20, 2026 — The Air District released the Final SEIR.

Bay Area Air District CEQA Findings and Supporting Facts

In accordance with Air District Rules and Regulations and CEQA, the Air District has reviewed and considered the 1999 Arques EIR certified by Lead Agency the City of Sunnyvale, as supplemented by the 2024 Addendum published by the Lead Agency and the Final SEIR prepared by the Air District, and has incorporated that analysis into its decision-making process.

No comments were received on the Draft SEIR during the public review period, which began on October 14, 2026 and closed on November 13, 2026, and no responses to comments were required under CEQA Guidelines Section 15088. No revisions have been made to the environmental analysis, impact conclusions, or supporting information presented in the Draft SEIR, and the only changes from the Draft SEIR are those necessary to convert the document to a Final SEIR. All contents of the 1999 Arques EIR, 2024 Addendum, and the Final SEIR are incorporated herein by reference. Also incorporated herein by reference is the Air District's files on Applied Materials' Application No. 700650, including the Air District's Engineering Evaluation and Health Risk Assessment.

Findings Regarding the Need for Supplemental Environmental Review

The Air District finds that preparation of a supplement to the 1999 Arques EIR was required for the Project under CEQA Guidelines Sections 15162 and 15163, on the basis of substantial evidence in the record. Specifically, the Air District finds that substantial changes occurred with respect to the circumstances under which the project will be undertaken, including new technologies, tools, and processes that did not exist in 1999 and significant advances in science and global knowledge about the effects and consequences of greenhouse gas emissions since the 1999 Arques EIR was certified. The Air District further finds that new information of substantial importance, which was not known and could not have been known at the time the 1999 Arques EIR was certified, shows that the Project will have significant effects not discussed in the 1999 Arques EIR and that a significant effect previously examined will be substantially more severe than shown in that document, within the meaning of CEQA Guidelines Section 15162(a)(3)(A) and (B). Specifically:

- The 1999 Arques EIR did not evaluate greenhouse gas (GHG) emissions or climate change. The Air District also considered the 2024 Addendum in evaluating the adequacy of the 1999 Arques EIR, and finds that, similar to the 1999 Arques EIR, the 2024 Addendum did not evaluate GHG emissions from the stationary sources subject to the Air District's permit. No adopted CEQA document for the Project has quantified emissions of nitrous oxides or fluorinated process gasses from the semiconductor process equipment. The Air District's Engineering Evaluation quantifies abated operational GHG emissions of approximately 80,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year from Source S-264; eight times the Air District's threshold of significance of 10,000 $MTCO_2e$ per year for stationary source projects.
- The 1999 Arques EIR reported 63 pounds per day of reactive organic gases (ROG) against the then applicable Air District threshold of 80 pounds per day, and did not identify an annual exceedance of ROG. The 2024 Addendum reported 38 pounds of ROG and did not identify an annual exceedance. New information from the applicant provides that total Project emissions of ROG (including precursor organic compounds [POC] from Project processes,

area sources, and mobile sources) are now estimated at 134.2 pounds per day, which exceeds the current threshold of 54 pounds per day. ROG emissions are therefore a significant effect that neither prior document discussed. For NO_X, the 1999 Arques EIR reported 103 pounds per day and identified an exceedance of the then applicable threshold of 80 pounds per day, a significant and unavoidable impact attributable principally to mobile sources. Total Project NO_X emissions are now estimated at approximately 201 pounds per day, nearly double the emissions estimated in the 1999 Arques EIR. The new information reveals that the NO_X effect is substantially more severe than shown in the 1999 Arques EIR. The permitted stationary sources alone (not including mobile and area sources previously analyzed) account for 123.0 pounds per day NO_X and 95.2 pounds per day of POC, from process equipment that neither prior document quantified.

The Air District further finds that focused additions and changes to the air quality and GHG analyses were necessary to make the 1999 Arques EIR adequate for the Project as revised, and that a Supplemental EIR under CEQA Guidelines Section 15163 which focused on these two issues was therefore the appropriate document. The analysis of all other environmental topics in the 1999 Arques EIR is unaffected and remains in effect.

The Air District finds that no substantial changes have been proposed in the Project that would require major revisions of the 1999 Arques EIR due to new significant environmental effects or a substantial increase in the severity of effects within the meaning of CEQA Guidelines Section 15162(a)(1).

Findings Regarding Air Quality Impacts

As a Responsible Agency, the Air District must independently evaluate the project's environmental effects that are within its expertise and jurisdiction, and make independent findings about the significance of any environmental effects. (CEQA Guidelines section 15096(h).) The following discussion summarizes the air quality impacts identified in the Final SEIR and presents facts supporting the Air District's findings.

Impact AQ-a: Conflict with or obstruct implementation of the applicable air quality plan

The Final SEIR concludes that this impact is **less than significant**. The 2017 Clean Air Plan accounts for growth in stationary source emissions through the Air District's New Source Review program. The Project will apply Best Available Control Technology (BACT) as determined by the Air District under Regulation 2-2-301, will apply Reasonably Available Control Technology (RACT) to NO_X and carbon monoxide from the point of use combustion devices under Regulation 2-2-102 at rates more stringent than the applicable RACT determinations, and will provide federally enforceable emission offsets at a ratio of 1:1 under Regulation 2-2-302. Because the offsets are federally enforceable and are provided at a 1:1 ratio, the Project's

ozone precursor emissions will not increase the regional inventory beyond the levels contemplated in the Clean Air Plan and the State Implementation Plan.

The Air District finds that the Project will not conflict with or obstruct implementation of the applicable air quality plan and that this impact is **less than significant**. No mitigation is required.

Impact AQ-b: Cumulatively considerable net increase of a criteria pollutant for which the region is in nonattainment status

The Final SEIR concludes that this impact is **significant and unavoidable**. The San Francisco Bay Area Air Basin is designated nonattainment for ozone under both the national and California ambient air quality standards. The permitted stationary sources will emit 95.2 pounds per day and 12.1 tons per year of POC and 123.0 pounds per day and 22.5 tons per year of NO_X, exceeding the Air District's daily thresholds of 54 pounds per day and annual thresholds of 10 tons per year for each pollutant.

The emissions analyzed are the emissions that will occur with the required controls applied. POC and non-precursor organic compounds are controlled to BACT. NO_X and carbon monoxide from the point of use devices are controlled to RACT at proposed rates of 0.10 pound of NO_X and 0.08 pound of carbon monoxide per million British thermal units, which are half and one tenth of the applicable RACT determinations of 0.20 and 0.8 pound per million British thermal units respectively. The offset requirement under Regulation 2-2-302 will fully offset the un-offset cumulative increase.

The Air District finds that no feasible mitigation beyond these regulatory requirements has been identified that would reduce stationary source POC and NO_X emissions below the applicable thresholds while allowing the Project to achieve its basic objectives. As shown in Table 3.1-7 of the Final SEIR, total Project operational emissions comprise the permitted stationary sources, mobile sources, area sources, and laboratory energy use, for totals of 134.2 pounds per day of ROG and 201 pounds per day of NO_X. Both exceed the Air District's daily threshold of significance of 54 pounds per day for ROG and NO_X. The mobile source component of those emissions was contemplated in the 1999 Arques EIR and the 2024 Addendum and is not within the Air District's permitting authority. The emission offsets required under Regulation 2-2-302 apply to the permitted stationary sources and do not extend to the mobile sources, area sources, or laboratory energy use components of the Project's emissions. Accordingly, the Air District finds that even with the offsets provided, total Project operational emissions of ROG and NO_X would continue to exceed the Air District's thresholds of significance. The Air District finds this impact to be **significant and unavoidable**, a conclusion consistent with the significant and unavoidable cumulative NO_X conclusion reached in the 1999 Arques EIR.

Impact AQ-c: Expose sensitive receptors to substantial pollutant concentrations

The Final SEIR concludes that this impact is **less than significant**. The Air District's health risk assessment estimates a Project cancer risk of 0.84 in one million, a Project chronic hazard index of 0.32, and a Project acute hazard index of 0.27. Each result is well below the Air District's project-level thresholds of 10 in one million for excess cancer risk and 1.0 for chronic and acute hazard index. Because the estimated chronic hazard index at the worker receptor exceeds the 0.20 trigger in Regulation 2-5-302, Toxics Best Available Control Technology applies, and the Air District has determined enforceable hourly and annual emission limits which will be imposed as permit conditions. The Air District finds that the Project will not expose sensitive receptors to substantial pollutant concentrations and that this impact is **less than significant**. No mitigation is required.

Impact AQ-d: Other emissions, such as those leading to odors, adversely affecting a substantial number of people

The Final SEIR concludes that this impact is **less than significant**. Chapter 5 of the Air District's CEQA Guidelines identifies odor screening distances for specific odor-generating land uses and types of operation in Table 5-4 of the Guidelines. The Project is a semiconductor research and development laboratory and is not among the land uses or types of operation identified in Table 5-4, and no screening distance applies. Because Sources S-264 and S-265 have not yet been permitted or constructed, they have no operating history and no associated odor complaints. The Project sources are subject to Air District Regulation 1-301, which prohibits the discharge of air contaminants that cause a public nuisance, and to Air District Regulation 7, Odorous Substances, which sets limits on the strength of odors a facility may discharge and caps the emission concentrations of certain odorous compounds. Regulation 1-301 applies at all times, and the Air District retains authority under it to abate any public nuisance that may arise from operation of the permitted sources.

The Air District finds that the Project will not result in odors adversely affecting a substantial number of people and that this impact is **less than significant**. No mitigation is required.

Findings Regarding Greenhouse Gas Impacts

As a Responsible Agency, the Air District must independently evaluate the project's environmental effects that are within its expertise and jurisdiction, and make independent findings about the significance of any environmental effects. (CEQA Guidelines section 15096(h).) The following discussion summarizes the greenhouse gas impacts identified in the Final SEIR and presents facts supporting the Air District's findings.

Impact GHG-a: Generation of greenhouse gas emissions that may have a significant effect on the environment

The Final SEIR concludes that this impact is **significant and unavoidable**. Abated operational GHG emissions from the permitted sources are approximately 80,000 $MTCO_2e$ per year, which exceeds the Air District's threshold of significance of 10,000 $MTCO_2e$ per year for stationary source projects. Of that total, about 57,518 $MTCO_2e$ per year is emitted from the dry process tools and 22,543 $MTCO_2e$ per year consists of combustion products from natural gas fired point of use abatement devices.

GHG emissions from the Project are constrained by an enforceable facility-wide CO_2e emission cap imposed as a permit condition, and Applied Materials is subject to the California Air Resources Board Regulation to Reduce Greenhouse Gas Emissions from Semiconductor Operations, Title 17 California Code of Regulations Section 95320 *et seq*. Neither the cap or the regulation reduces emissions below the applicable threshold.

The Air District finds that no additional feasible mitigation would further reduce the Project's already abated operational GHG emissions from the permitted sources, while allowing the Project to achieve its basic objectives, and therefore finds this impact to be **significant and unavoidable**.

Impact GHG-b: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gas emissions

The Final SEIR concludes that this impact is **significant and unavoidable**. The Project would exceed the Air District's adopted stationary source threshold of significance of 10,000 $MTCO_2e$ per year. The Air District adopted that threshold for the purpose of identifying stationary source projects whose GHG emissions make a cumulatively considerable contribution to climate change.

The Air District finds that mitigation would not reduce emissions below the applicable threshold, for the reasons stated under Impact GHG-a, and finds this impact to be **significant and unavoidable**.

Findings Regarding Impacts Other Than Air Quality and Greenhouse Gas Emissions

The Air District also finds and determines that, with regard to environmental impacts other than Air Quality and Greenhouse Gas Emissions, the analysis in the 1999 Arques EIR and 2024 Addendum is beyond the expertise and jurisdiction of the Air District as a Responsible Agency. Consistent with CEQA Guidelines Section 15163(b), the SEIR contains only the information necessary to make the 1999 Arques EIR and the 2024 Addendum adequate for the Air District's discretionary permit decision.

Any changes or alterations addressing impacts other than air quality and GHG emissions are within the responsibility and jurisdiction of the City of Sunnyvale as Lead Agency. The Air District does not have authority over these non-air quality related impacts and thus cannot analyze or impose any further mitigation measures with respect to them.

Statement of Overriding Considerations

The Air District has determined that the Project will result in significant and unavoidable environmental impacts that cannot be mitigated to a level of less than significant. These impacts are:

1. **Impact AQ-b.** A cumulatively considerable net increase in emissions of ozone precursors, being precursor organic compounds and oxides of nitrogen, for which the San Francisco Bay Area Air Basin is designated nonattainment.
2. **Impact GHG-a.** Generation of a cumulatively considerable contribution to a significant cumulative effect on the environment as a result of the operational GHG emissions of approximately 80,000 $MTCO_2e$ per year from the permitted stationary sources.
3. **Impact GHG-b.** Conflict with the Air District's adopted stationary source GHG threshold of significance.

Pursuant to CEQA Guidelines Section 15093, the Air District has balanced the benefits of the Project against these unavoidable environmental impacts. The Air District finds that the following specific overriding economic, legal, social, technological, and other benefits, including region-wide and statewide environmental benefits, of the Project outweigh its unavoidable adverse environmental impacts, and that those impacts are therefore acceptable:

1. The importance of retaining and inviting investment in California's leadership in technology, innovation, and semiconductor manufacturing while securing state, federal, and private investments exceeding $5 billion dollars, which on average generates approximately $2.64 of economic activity for each dollar invested.
2. Retention of semiconductor research and development capability in California, where the operations are subject to the California Air Resources Board semiconductor GHG regulation and to Air District permitting.
3. Regional economic benefits and the provision of employment opportunities for highly trained workers, a consideration expressly identified in CEQA Guidelines Section 15091(a)(3). The campus would accommodate up to 2,800 employees.

4. The implementation of joint and collaborative research and development spaces at the EPIC Center to produce and retain innovation involving California's institutions of higher education that will ultimately benefit California's university scholars and students.
5. The role of the largest ever advanced semiconductor research and development investment to reduce the time from breakthroughs in technology to commercial application.
6. Ensure that the domestic advantage in semiconductor technology is not lost to investments in other regions of the world which may be competitive or unfriendly to California, or the United States, and may have fewer limits on air quality and greenhouse gas emissions, therefore causing a more significant cumulative impact than this Project.
7. Completion of buildout of an adopted specific plan on an existing developed industrial campus, consistent with the City of Sunnyvale General Plan Land Use and Transportation Element and with regional growth projections.

The Air District has determined that the significant and unavoidable adverse impacts of the Project as documented in the Final SEIR are acceptable in light of the specific economic, legal, social, technological, and other benefits of the Project, which outweigh those impacts. The Air District bases this conclusion on the evidence and analysis provided in the 1999 Arques EIR, the 2024 Addendum, and the Final SEIR, and on the Air District's own analysis of the Project and its impacts and benefits. The Air District further finds that each of the benefits set forth above independently would be sufficient to outweigh the significant and unavoidable adverse environmental impacts of the Project, and that the Air District would approve the Project on the basis of any one of them.

The Air District will issue a Notice of Determination regarding the Air District's consideration of CEQA issues concurrently with the issuance of the Authority to Construct for the Project (Air District Permit Application No. 700650). The Air District will provide notice to the public regarding this Notice of Determination in accordance with the requirements of CEQA. In accordance with CEQA Guidelines Section 15093(b), this Statement of Overriding Considerations shall be included in the record of the Project approval and shall be mentioned in the Notice of Determination.

The Air District finds that no available feasible mitigation measures have been identified in the Final SEIR, and that the significant and unavoidable impacts described above therefore remain unmitigated. Emissions from the permitted sources are controlled through mandatory regulatory requirements described in Section 2.7 of the Final SEIR, comprising Best Available Control Technology under Air District Regulation 2-2-301, Reasonably Available Control Technology under Regulation 2-2-102, Toxic Best Available Control Technology under Regulation 2-5-302, federally enforceable emission offsets under Regulation 2-2-302, an enforceable facility wide carbon dioxide equivalent emission cap, and compliance with the

California Air Resources Board Regulation to Reduce Greenhouse Gas Emissions from Semiconductor Operations. These requirements are components of the Project as it will be permitted rather than mitigation measures adopted under CEQA, and each will be imposed as an enforceable condition of the Authority to Construct and Permit to Operate. The Air District finds that compliance with these requirements will be monitored and enforced through the Air District's permit compliance program, including the source testing, monitoring, recordkeeping, and reporting obligations imposed by the permit conditions. Although no mitigation measures have been adopted, the Air District finds that the program is adequate to serve any reporting or monitoring function contemplated by Public Resources Code Section 21081.6.

The documents and other materials that constitute the record of proceedings upon which this decision is based are available to the general public at the Air District offices, 375 Beale Street, Suite 600, San Francisco, CA 94105, and at: https://www.baaqmd.gov/en/Permits/Public-Notices/Page-Resources/Table-Data/2026/10142026-700650/Applied-Materials.