



August 31st, 2023

Linda Kildahl
Department of Ecology
Air Quality Program
P.O. Box 47600
Olympia, WA 98504-7600

RE: Comments on Proposed Rulemaking for the Hydrofluorocarbons (HFCs) and Other Fluorinated Greenhouse Gasses Rule.

Dear Ms. Kildahl:

Thank you for giving us the opportunity to comment on Washington Department of Ecology's proposed Hydrofluorocarbons (HFCs) and Other Fluorinated Greenhouse Gasses Rule.

As you may know, WaferTech is a semiconductor manufacturer based in Camas, WA. We are a wholly owned subsidiary of Taiwan Semiconductor Manufacturing Company (TSMC). As the world's leading foundry semiconductor manufacturer, TSMC and all of its subsidiaries take Environmental Social Governance seriously. TSMC is a member of the World Semiconductor Council which leads industry efforts for PFC Emission Reductions. WaferTech's environmental management system has been certified to ISO 14001 since 2001 and we have been validated to ISO 14064 to quantify, monitor, report, and verify greenhouse gas emissions since 2011.

WaferTech strongly believes that climate change is an important societal issue and we are attempting to do our part to help. With this in mind, we have the following comments regarding the proposed rule 173-443 of the Washington Administrative Code.

- 1.) **WAC 173-443-030** defines Heat Transfer Fluid as “any gas or liquid used for the purpose of transmitting heat from one place to another” and High-GWP refrigerant as “a compound used as a heat transfer fluid or gas that is...any compound or blend of compounds with a GWP value greater than 150.” These definitions put fluorinated heat transfer fluids (f-HTF) in scope of this rule making. Semiconductor manufacturers already are required to track usage and emissions of f-HTFs under 40 CFR Part 98 subpart I. Semiconductor Manufacturers are also required to report f-HTF

usage and emissions to Ecology under WAC 173-441. Under Washington's Climate Commitment Act Program, WAC 173-446, GHG emissions from f-HTFs count towards a semiconductor manufacturer's GHG emission allowance compliance obligation. WaferTech requests that Ecology exempt f-HTFs used in semiconductor manufacturing from WAC 173-443 since emissions for these are already regulated under WAC 173-446.

- 2.) **WAC 173-443-145 (4)** states that "by January 1st, 2024, refrigeration or air conditioning systems with a full charge of greater than or equal to 50 pounds, but less than 200 pounds, that is intended to operate year-round must ...conduct a leak inspection at least once each year..." Since the final rule has not been published it does not allow adequate time for facilities to perform leak tests on their refrigeration or air conditioning equipment by January 1st, 2024. This subsection also does not include language that the refrigerant in the equipment be a High-GWP refrigerant. WaferTech requests that the due date for the requirements in WAC 173-443-145 be changed to January 1st, 2025, to allow facilities reasonable time to complete the requirements. WaferTech also requests that WAC 173-443-145 (4) be updated to add that the requirements apply to systems that are charged with High-GWP refrigerants to align with WAC 173-445 (1).
- 3.) **WAC 173-443-165 (2)** states that "...a refrigerant leak must be repaired by a certified technician..." Many industrial chillers used in semiconductor manufacturing are highly specialized semiconductor chillers and technicians certified to meet the requirements of WAC 173-443 are not qualified to maintain or repair chillers used in the semiconductor manufacturing industry. WaferTech requests that semiconductor manufacturing refrigeration equipment be excluded from the requirement that certified technicians must repair refrigerant leaks because semiconductor equipment technicians are already highly trained to maintain the specialized industrial chillers.
- 4.) **WAC 173-443-205 (1)** states that "A person performing any installation, maintenance, service, repair, or disposal of a refrigeration or air conditioning system with a full charge greater than or equal to 50 pounds of a high-GWP refrigerant must ... hold a current, valid, and applicable certificate issued under 40 C.F.R. § 82.161 (as amended November 18, 2016)." As stated in our previous comment, industrial chillers used in semiconductor manufacturing are highly specialized. WaferTech requests that refrigeration equipment used in semiconductor manufacturing be excluded from requirements in WAC 173-443-205 as semiconductor manufacturing equipment maintenance requires specialized personnel and the industry must follow stringent SEMI Industrial Standards when installing, maintaining, repairing, and disposing of this equipment.

Thank you for your consideration. Please contact me if there are any follow-up questions.

Sincerely,

A handwritten signature in blue ink that reads "Sally Hurst". The signature is written in a cursive, flowing style.

Sally Hurst
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