



Silfab Solar, Inc.
York County, SC
SYNTHETIC MINOR CONSTRUCTION PERMIT
Permit No. CP-50000090 v1.0

Air Quality Construction Permit

In June 2023, DHEC received an air permit application from Silfab Solar, Inc., to construct emissions sources associated with a proposed solar cell and panel production facility in York County. On Aug. 9, 2023, following DHEC's technical review of the permit application and supplemental information, DHEC provided public notice of the proposed facility's permit application, a draft air permit, and a statement of basis (summarizing the project, its emissions, and regulatory and permit applicability), including a 30-day public comment period.

After hearing concerns from community members, DHEC extended the public comment period until Nov. 3, 2023, and scheduled a public meeting and hearing for Oct. 30, 2023. More than 100 community members attended the public meeting and hearing, and more than 400 written or oral comments were received during the extended public comment period.

DHEC's application review process included a careful review and consideration of each public comment received. As a result of this process, some air permit conditions were changed or added based on public comments received. DHEC issued a final air permit on March 1, 2024. A copy of the air permit and a 23-page response to public comments are available on [DHEC's website](#). Anyone who submitted written comments during the public comment period or attended the public meeting/hearing and requested an update on the permit decision received notice of the permit decision by email or by mail.

After the air construction permit was issued, several community members filed a Request for Final Review Conference with the DHEC Board. On April 17, 2024, the DHEC Board declined to conduct a conference, and the permit became the final agency decision. No appeal of this decision was received by the S.C. Administrative Law Court within the statutory timeframe for seeking further review.

DHEC's air permits implement regulations that are designed to be protective of public health and the environment. If built, the facility would be required to comply with its air permit, which includes requirements for stack testing, monitoring, record keeping, reporting, and emergency response planning coordination with the local fire department. DHEC will conduct unannounced periodic compliance inspections at the facility and will respond to complaints or concerns.

In May 2024, Silfab notified DHEC that it needed to modify the proposed stack height to meet county requirements. On June 4, 2024, DHEC met with Silfab and directed the facility to submit an air dispersion modeling analysis to verify a shorter stack would meet all state and federal air quality standards. As of June 20, this analysis has not been submitted.

Air Toxic Pollutants

[S.C. Regulation 61-62.5](#), Standard No. 8, *Toxic Air Pollutants*, is a health-based regulation that sets a maximum allowable 24-hour average concentration (MAAC) for each listed air toxic pollutant which is designed to be protective of human health for all populations. Silfab's permit application included three air

toxic pollutants regulated by this standard: hydrogen fluoride, toluene, and hydrochloric acid. These chemicals are commonly used in both industrial processes and in the manufacturing of consumer products.

Facilities demonstrate compliance with the MAACs using a computerized air dispersion modeling analysis. The modeling analysis received from Silfab and reviewed by DHEC for hydrochloric acid and hydrogen fluoride emissions demonstrated compliance with the applicable MAACs. The toluene emissions were below de minimis levels and, therefore, are not expected to cause an exceedance of the MAAC as specified by the regulation. **See summary tables below.**

Pollutant	Facility Modeled Emission Rate (pounds/hour)	Facility Maximum Predicted Concentration ($\mu\text{g}/\text{m}^3$)	Standard ($\mu\text{g}/\text{m}^3$)	% of Standard
Hydrochloric Acid	1.741	35.08	175.00	20
Hydrogen Fluoride	0.0864	1.74	2.05	85

Pollutant	Facility Emission Rate (pounds/day)	De Minimis Emission Rate (pounds/day)
Toluene	2.616	24.000

MAAC levels are categorized by toxicity levels: Category 1 (low), Category 2 (moderate) and Category 3 (high). Hydrochloric acid is classified as a Category 1 air toxic pollutant. Hydrogen fluoride and toluene are considered Category 3 air toxic pollutants. Because Category 3 air toxics are highly toxic, the MAACs set for these pollutants use more stringent safety factors (as compared to Class 1 and Class 2 chemicals) to set a more restrictive standard. More than 150 facilities across the state emit at least one Category 3 air toxic pollutant, and of those, at least 34 facilities emit toluene and at least 13 facilities emit hydrogen fluoride.

Chemical Accidental Release Prevention Provisions

[S.C. Regulation 61-62.68](#), *Chemical Accident Prevention Provisions* (pursuant to Section 112(r) of the Clean Air Act), is designed to prevent accidental releases of toxic and flammable substances that may cause harm to the public or the environment and to reduce the severity of such releases if they occur. The three major elements of the program are hazard assessment, prevention program, and emergency response. As part of its risk management program, a facility must: conduct an off-site consequences analysis identifying possible hazards and potential impacts; train all employees on the hazards of chemicals stored on site; and ensure each employee working directly with a regulated substance receives training in operating procedures.

The facility also must develop an emergency response plan that addresses the unique characteristics of its property and chemicals, coordinate its plan with response agencies (e.g., local fire department), and develop procedures for informing the public and response agencies should an accident occur.

Silfab will be subject to this regulation for its storage and use of silane and hydrochloric acid. Both of these chemicals are commonly used in both industrial processes and the manufacturing of consumer products. Silfab will be required to develop and implement a risk management program and submit a summary of the program, called a risk management plan (RMP), to the U.S. Environmental Protection Agency (EPA) prior to bringing silane or hydrochloric acid onsite above a specified threshold quantity. The EPA will share the RMP with DHEC, and DHEC will verify compliance with its requirements through periodic compliance inspections.