

**Plain Language Summary for New Source Review (NSR) Initial
Application for Air NSR Permit Number 172324, Prevention of Significant Deterioration (PSD)
Permit PSDTX1620, and Greenhouse Gas PSD Permit GHGPSDTX231**

The following summary is provided for this pending air permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

Linde Inc (CN600130645) has submitted an application for initial Air Permit Number 172324, Prevention of Significant Deterioration (PSD) Air Quality Permit Number PSDTX1620, and Greenhouse Gas PSD Permit GHGPSDTX231. The Nederland Facility (RN 111708863) will produce/manufacture purified hydrogen in Nederland, Jefferson County and will be located at the following directions: from Nederland Ave in Nederland, take US-287 North / US-69 North / US-96 North, drive 2.5 miles north and exit on US-69 access road. Drive 0.5 miles, turn right onto Farm-to-Market Road 3514, drive approximately 450 feet, and the facility is on the left, Nederland, Jefferson County, Texas 77705.

This permit will authorize construction of a new purified hydrogen production facility, with associated utility and support systems, that will also include air separation for producing oxygen, nitrogen, and other separated air gases. The Nederland Facility will produce approximately 300,000 tons per year of purified hydrogen from natural gas. More than 2 million tons per year of carbon dioxide from the hydrogen production process will be sent to a third-party customer for offsite sequestration. Linde Inc has listed in the application the pollutants and amounts that will be emitted for each facility. Below is the total amount for each pollutant that is proposed to be emitted each year for all the facilities.

Pollutant	Proposed Emissions (tons per year)
VOC	32.08
PM	33.91
PM ₁₀	31.18
PM _{2.5}	26.22
NO _x	68.86
CO	323.98
SO ₂	15.41
HCN (HAP)	5.33
NH ₃	19.22
CO _{2e}	2,967,888

A gas flare will reduce emissions of VOC and other combustible compounds contained in waste gas streams burned in the flare. The largest three gas-fired combustion units will be equipped with Selective Catalytic Reduction systems to reduce NO_x emissions by reacting the NO_x with ammonia in a catalyst bed. CO₂ emissions will be reduced by separating CO₂ from the process as a concentrated CO₂ product to send via pipeline to a third-party customer's offsite CO₂ storage facility.