

Modeling Pollutant Plume Patterns of Proposed PGW Facility

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The construction of a natural gas liquefaction plant owned by Philadelphia Gas Works (PGW) has been approved by City Council without an unbiased study of the environmental and health impacts. Therefore, this research explores the mechanics of 3D plumes in order to predict their movement in space using partial differential equations and multivariable calculus. By tailoring our research specifically to the climate of southeast Philadelphia we can predict the concentration of pollutants at different points in the city. Once we have quantified how much pollution will be present in a community we can draw conclusions about air quality and resulting health impacts.

Date: Tuesday February 18, 2020

Time: 7:00 p.m.

Place: Park 328