

# Geneva Nitrogen LLC

## PM 2.5 SIP Major Point Source BACT Information

Submitted: August 10, 2017

### Site and Company Information:

Geneva Nitrogen LLC is located at 1165 North 1600 West, Vineyard, Utah County, in the state of Utah. The plant's UTM coordinates are Easting 447.607, Northing 4463.833.

### Recent Permitting Actions:

1. Approval Orders:
  - a. DAQE-AN825005-03 approved on December 9, 2003.
2. Title V Permit:
  - a. Permit Number 4900082004 effective August 8, 2013.
3. SIP Submittal:
  - a. Geneva Nitrogen was listed under the 2005 State Implementation Plan submittal.

### Description of Facility:

Geneva Nitrogen LLC manufactures solid ammonium nitrate (prill) in a three step process:

1. Nitric acid production
2. Ammonium nitrate solution production
3. Solid ammonium nitrate production

*The following will describe each of these processes in detail*

### Nitric Acid Manufacturing Process

Geneva Nitrogen utilizes two independent nitric acid production facilities, Montecatini and Weatherly, for the production of "weak" nitric acid. "Weak" nitric acid refers to acid production between 30 and 70 percent concentration. Each of these facilities produce nitric acid concentrated to 54 percent. (Refer to site plan in Appendix Section, Appendix 1 for facility locations).

Nitric acid production is accomplished in three major steps (refer to Appendix B-2 & Appendix B-3 in Appendix Section):

1. High temperature catalytic oxidation of ammonia.

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