|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Calculation ID** | **11B** | **Source Type** | Scrubber | **# Units** | 1 |
|  | | **Sub type** | Aerozine-50, SLC-2 | | |
| **Buildings and AB2588 Device IDs** | | |  |  | | --- | --- | | **Building** | **AB2588 Device ID** | | SLC-2 | 384034 | | | | |
| **Calculation Method Type** | | Emissions are based on permitted activities. | | | |
| **Inputs** | | Activities as reported in the 2018 SBCAPCD Annual Report for Permit 13968.  Annual Emission: 1.526 lbs | | | |
| **Outputs** | | Hydrazine and UDMH Emissions | | | |
| **Calculations** | | 92% of vapor phase is Dimethyl Hydrazine (1,1-) and 8% is Hydrazine.  Estimation based on Tables 6.5 – 6.7 of *Determination of Thermodynamic Properties of Aerozine-50*  N2H4 emissions = 8% \* 1.526 = 0.122 lbs/yr and 8% x 0.170 = 0.0136 lbs/hr  UDMH emissions = 92% \* 1.526 = 1.404 lbs/yr and 92% x 0.170 = 0.1564 lbs/hr | | | |
| **Assumptions** | | None | | | |
| **Regulated Compounds** | | |  |  |  | | --- | --- | --- | | **Chemical** | **Hourly Emissions (lb/hr)** | **Annual Emissions (lb/yr)** | | Hydrazine | 0.0136 | 0.122 | | Dimethyl Hydrazine (1,1-) | 0.1564 | 1.404 | | | | |
| **Notes** | | Emissions in lb/hr are based on 3 events in 2018 and 3 hours per events.  ROC (lb/hr) = 1.526/9 = 0.170 | | | |
| **References** | | 2018 SBCAPCD Annual Report for Permit 13968.  Determination of Thermodynamic Properties of Aerozine-50, NASA (1968). | | | |