

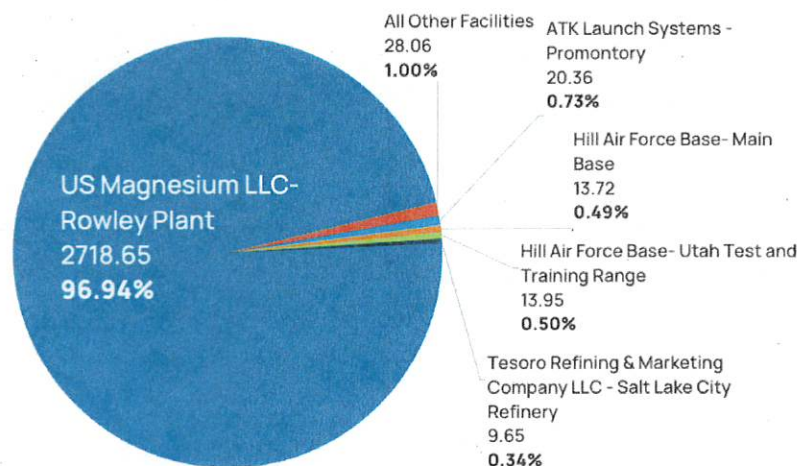
How do you know the impact of Halogen Emissions?

Research publication following the 2017 Utah Winter Fine particulate Study identified the chemical enhancement of particulate formation from Halogen Compounds to the Wasatch Front.

<https://pubs.acs.org/doi/10.1021/acs.est.2c05376>

What are the sources of Halogen Emissions?

**Figure 1. Eight Reactive Chlorine Gas Compound Emissions From Point Sources (2020-2022 Point Source Inventory in tons/year)**



(Page 8

[https://lf-public.deq.utah.gov/WebLink/Search.aspx?searchcommand={\[\]:\[DEQ%20Number\]=%22DAQ-2023-010993%22}&repo=Public&?dbid=0](https://lf-public.deq.utah.gov/WebLink/Search.aspx?searchcommand={[]:[DEQ%20Number]=%22DAQ-2023-010993%22}&repo=Public&?dbid=0))

What is the cost of controls for implementing routing of maintenance emissions to the Chlorine Scrubber?

A conservative look at the last five years of data (July 2018 - July 2022) suggests this control technology update would result in a reduction of 33 tons of Cl<sub>2</sub> per month (396 tpy) and 1,980 tons of Cl<sub>2</sub> per rolling 60-month period. USM has estimated that the cost of this project would cost approximately \$204,000. This equates to \$515/ton of Cl<sub>2</sub> removed which the UDAQ deems economically feasible. Therefore, this control option would be considered a viable emission reduction strategy. (Page 16

<https://lf-public.deq.utah.gov/WebLink/DocView.aspx?id=464395&eqdocs=DAQ-2024-011263>)

Change in surface PM<sub>2.5</sub>  
due to halogen emissions (%)

