

Memo

To: Lixa Rodriguez-Ramon, *Environmental Engineer*
CC: Rebecca Ford, *Program Manager*, Phillip Nessler, *Contract Officer's Representative*
From: 250/ Harry Stein, *Environmental Scientist*
Date: May 29, 2019
Re: 2018 GSFC TRI Report

DDC 4C has concluded its annual data review and validation for the 2018 Emergency Planning and Community Right to Know Act (EPCRA) Toxic Release Inventory (TRI) report for NASA Goddard Space Flight Center (GSFC). Data was evaluated from the Hazardous Material Management System (HMMS), the 2018 Emission Certification Report, and Facilities Management Division (FMD) records from chiller plant logs and Heating Ventilation and Air Conditioning (HVAC) repair shop logs. GSFC's falls into the 'otherwise use' category. In this category, GSFC is required to generate a TRI report for any Superfund Amendments and Reauthorization Act (SARA) 313 chemical that is used in excess of 10,000 pounds at the Greenbelt Facility. In addition to the SARA 313 list, TRI also evaluates the usage of Persistent, Bioaccumulative and Toxic chemicals (PBTs). These chemicals have much lower reporting thresholds and their usage requires a more comprehensive evaluation and validation than the SARA 313 chemical usage. DDC 4C found GSFC did not exceed any thresholds for reporting of PBTs.

HMMS produced the SARA 313 and PBT data evaluated. The report shows usage of two SARA 313 chemicals over the reporting threshold. According to our records, GSFC used 10.53 pounds of Lead (10.12 pounds from solder) and 75,740 pounds of Sulfuric Acid in 2018. Both chemicals are over their reporting threshold of 10 and 10,000 pounds respectively. An evaluation of the data revealed this was not representative of the actual 2018 usage. Due to a back log of work in the HM (Hazardous Materials) office and with the end user, turn in records were not entered in real time and therefore multiple containers were turned in on the same days. Several Lead containers were turned in on June 11, 2018 and Sulfuric Acid containers were turned in on October 9 and November 15, 2018. For this reason both chemicals are below their reporting threshold.

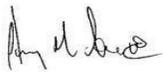
Although it appears GSFC may have met or exceeded the 10,000 pound threshold for 'otherwise use' for sulfuric acid, most of its use is for water treatment in the GSFC's central steam and chilled water distribution system. This operation provides steam and chilled water to the major buildings at GSFC for comfort cooling and heating and therefore qualifies for the 'Personal Use' exemption. Some buildings take the feed from GSFC's central steam and chilled water then further condition the air to meet a requirement for the building or a location within that building. We would not claim the 'Personal Use' exemption for those operations. Other operations at GSFC consume 450 pounds of Sulfuric Acid, well below the reporting threshold.

DDC 4C has also evaluated the emissions from the combustion of fuels. Data from the 2018 Emission Certification Report was used to calculate emissions of PBTs from fuel combustion. These calculations are based on EPA guidance.

After a thorough review of the data and validation by DDC 4C, GSFC does not need to file a 2018 TRI report.

The reports reviewed by DDC 4C demonstrate that data in HMMS is becoming much more accurate than in years past however, we need to better track chilled water and steam operation in a little more detail and will work that with the HM office. If you'd like to discuss this in more detail, please contact me.

Sincerely,



Harry M. Stein IV
Deputy Program Manager

Enclosure: 2018 GSFC GB TRI Worksheet