



## **Instructions for Completing the 2019 TENORM Monthly Disposal Balance Spreadsheet**

### **Background**

The attached Excel spreadsheet, titled “2019 TENORM Monthly Disposal Balance,” is designed to automatically calculate the cumulative volume and activity of TENORM-containing waste received and identifies remaining monthly TENORM capacity, or monthly source term allocation (MSTA), based upon the handheld meter readings and tonnages you input. This tracking spreadsheet is required to be used, in addition to the annual tracking requirement, for calendar year 2019 to identify all TENORM received that exceeds the monitor’s set point (greater than 10  $\mu$ R/Hr above the average background at the facility).

Information regarding each load of TENORM-containing waste must be entered into the TENORM Monthly Disposal Balance spreadsheet as soon as it becomes available. This is necessary to ensure that the Department’s protocol for effective mixing of TENORM-containing waste with non-TENORM-containing waste is properly implemented and the radioactive concentration of sludge generated from the processing of oil and gas-related waste (waste code 804) and all non-sludge TENORM is appropriately accounted for through the use of an appropriate multiplier. A multiplier of 1.5 is applied to waste codes 804 and 812, and a multiplier of 0.38 is applied to all other TENORM-containing waste.

Landfill operators are advised to closely monitor their MSTa balance to ensure compliance with DEP’s disposal protocol. Caution should be exercised when accepting TENORM-containing waste loads when you are approaching your monthly TENORM source term allocation limit to ensure you do not exceed the monthly allocation.

If any waste is mixed with the 804 RWC for disposal purposes, the entire waste load must be designated with the 804 waste code. Similarly, if any waste other than RWC 804 is mixed with RWC 812 for disposal purposes, the entire waste load must be designated with the 812 RWC. For a description of each residual waste code, please see the “Residual Waste Code (RWC)” attachment.

### **Instructions**

1. In the spaces provided at the top of the spreadsheet, enter the landfill name, county and township in which the landfill resides, and the month for which the spreadsheet is being completed.

**NOTE:** A new spreadsheet must be completed for each month throughout the 2019 calendar year. For example, do not enter TENORM waste received in February on January’s spreadsheet; you will need to start a new spreadsheet for February.

2. Fill in the cells labeled “**ENTER NON-TENORM TONNAGE DISPOSED 2016 HERE**,” “**ENTER NON-TENORM TONNAGE DISPOSED 2017 HERE**,” and “**ENTER NON-TENORM TONNAGE DISPOSED 2018 HERE**” with the amount, in tons, of all waste disposed in the landfill for each respective calendar year, subtracting the amount of disposed TENORM-containing wastes that exceeded the monitor’s set points. The MSTA will be automatically calculated once the collected tonnage data for each of the three prior years is entered.
3. When a load of TENORM-containing waste that is above the radiation detection monitor set point arrives at your landfill, **immediately** fill in the date that the waste arrives and complete all information in the adjacent columns in the spreadsheet as it becomes available with the exception of the columns labeled “Multiplier,” “Load Source Term,” “MSTA Remaining,” and “Additional Comments,” which are locked for editing. The values in these locked columns will populate automatically.

Report the actual meter readings from the handheld device for the right and left side center-line, mid-point dose rates for each TENORM-containing waste load.

The “MSTA Remaining” and “Additional Comments” columns will continue to prompt you for additional information until, at a minimum, the waste code, right and left-side dose rates, and tonnage for a load are entered into the appropriate fields. If an incorrect entry is made for one of these three parameters (i.e., a word is entered in the “TENORM Tonnage” column instead of a number), the “Load Source Term” column will display “**Input Error**.” If you see this message, please ensure that you have entered the correct information in the appropriate fields.

- a. When a waste code is entered for a load, the “Multiplier” column will automatically populate with the multiplier that will be used in the calculation of the load’s source term and the landfill’s remaining MSTA for the month.
- b. When a waste code, right and left-side dose rates, and tonnage for a load are entered into the appropriate fields:
  - i. The “Load Source Term” column will auto-populate with the calculated source term for the load;
  - ii. The “MSTA Remaining” column will auto-populate with the total remaining source term allocation for the landfill for the remainder of the month; and
  - iii. The “Additional Comments” column will auto-populate with one of the following messages stating whether or not the load can be accepted for disposal:

- If the spreadsheet determines that there will be more than 1,000 MSTA remaining after the disposal of a waste load, the “Additional Comments” column will read: **“You may accept this waste load for disposal,”** and the waste load can be disposed of in the landfill.
- If the spreadsheet determines that there will be less than 1,000 MSTA remaining after the disposal of a waste load, the “Additional Comments” column will warn you that: **“You are approaching your monthly source term allocation limit,”** and you may still accept the waste load for disposal.
- If the spreadsheet determines that the MSTA limit will be reached after the disposal of a waste load, the “Additional Comments” column will read: **“You have reached your monthly source term allocation limit,”** and, when the waste load is disposed of, you may not dispose of any more TENORM-containing waste for the remainder of the month.
- If the spreadsheet determines that the MSTA will be exceeded after the disposal of a waste load, the “MSTA Remaining” column will read: **“REJECT,”** and the “Additional Comments” column will read: **“DO NOT ACCEPT – This waste load will exceed your monthly source term allocation. File Supplemental Waste Tracking Form (SWTF) to return the rejected load to the generator or other designated facility.”**

Before the load can be returned to the generator or other designated facility, please follow the instructions on the attached “Supplemental Waste Tracking Form.”

4. Please send your completed 2019 Monthly TENORM Disposal Balance spreadsheets electronically to the Department’s TENORM Report Resource Account at [RA-EPTENORM@pa.gov](mailto:RA-EPTENORM@pa.gov) on a monthly basis by the 5<sup>th</sup> day of the following month, until further notice. Please copy the applicable DEP regional solid waste manager using the email addresses listed below:

Southeast Regional Solid Waste Manager: James Wentzel ([jwentzel@pa.gov](mailto:jwentzel@pa.gov))

Northeast Regional Solid Waste Manager: Roger Bellas ([rbellas@pa.gov](mailto:rbellas@pa.gov))

Southcentral Regional Solid Waste Manager: Tony Rathfon ([arathfon@pa.gov](mailto:arathfon@pa.gov))

Northcentral Regional Solid Waste Manager: Patrick Brennan ([pbrennan@pa.gov](mailto:pbrennan@pa.gov))

Southwest Regional Solid Waste Manager: Scott Swarm ([hswarm@pa.gov](mailto:hswarm@pa.gov))

Northwest Regional Solid Waste Manager: Christina Wilhelm ([cwilhelm@pa.gov](mailto:cwilhelm@pa.gov))

If you have any questions or need to make changes to any information on a Monthly TENORM Report Spreadsheet that has already been submitted, please contact the Department using the provided Resource Account ([RA-EPTENORM@pa.gov](mailto:RA-EPTENORM@pa.gov)).