At the beginning of every working day, the first person who comes into the lab checks the refrigerator temperature log to make sure the refrigerator temperature was in compliance from the time of the last check. The following gives detailed instructions on how to accomplish this task:

1. Insert the USB drive into the USB port on the left side of the thermometer. The word "MEM" should then show up in the screen of the thermometer, indicating that the temperature log is being saved to the USB drive.

2. Once you hear a beep sound, it means the data has been downloaded into the USB drive, so the drive can be removed.

**Remarks: Do not remove USB drive until download is complete. Do not leave the USB drive inserted into the thermometer unless you are logging the temperature data.**

3. Once you insert the USB drive in the computer, you should see an USB drive with the name "STORE N GO" in the file explorer. Open the drive and there should be an excel sheet/csv file with a name that begins with seven digits, which is the unique ID number of the thermometer, followed by a letter. The first file starts with letter A. Please open the most recent excel file.

4. When you open the file, you will see several tables. First, you should look at the table "Temperature Data". In the table, there are four columns. The first column is temperature in degree Celsius; the second column is always empty; the third column is the time; the last column is the date. Please check the temperature data for the previous day to see if the refrigerator is **out of compliance**. If it is **out of compliance**, please notify your supervisor.

**Out of compliance means:**

**a. There are eight consecutive temperature data points that have temperatures above 6 ºC.**

**b. The temperature has reached below freezing temperature (<0 ºC) and the reagents/standards stored in the refrigerator are frozen solid.**

5. Then, you should look at the table "Alarm Event Data". The table shows the alarm events when the temperature of the refrigerator is > 6 ºC. If you see any alarm event in the previous from the table, you should check the time and date out, which is the time/date when the temperature is out of tolerance, and the time and date in, which is the time/date when the temperature returns to within tolerance. Please make sure that the alarm event does not last for more than 8 hours or multiple alarm events in one day do not add up to more than 8 hours. For example, if the temperature was > 6 ºC for five hours, dips down to the acceptable range for one hour, and goes back up, then corrective action must be made. If you see any alarm lasting close to or more than 8 hours, please notify Addie, Kenneth or Bettina immediately.

**NOTE: When it is Monday/first working day of the week, please check the data for the previous weekend/holiday.**

**NOTE: Double check the thermometer is displaying temperatures to the date that you are checking it. If the thermometer is displaying an old date, there may be an issue with the save file and you should contact your supervisor.**

6. After you have checked the data, please save the latest excel file as a pdf file using the name format "YYMMDD_Room number" and save it in labs(\\floridadep\data) drive -> Lab3 -> Chem_Data -> Inorganic -> Nutrients -> Run_data ->MetaData -> RefrigeratorTemp-Logs -> Select your refrigerator ID

-> select the correct year and month. After saving the pdf, save the excel file using the name format and delete the original excel file.

**NOTE:The pdf files are reviewed monthly. Once the pdf files are reviewed, the excel files can be deleted from the USB. Please check with your supervisors before deleting any excel files.**

7. In the Refrigerator Temperature Check sheet (NU-REFTEMPCHK-1.0), please write down the date, time, and your initial. Then, please write Y or N in the "In Compliance" box of the sheet to indicate if the temperature data is in compliance (Y) or out of compliance (N).

8. In the temperature check sheet, the comment section can be used for the following scenario.

**a. Please double check if the log sheet was checked the previous weekday/weekend. If not, check the data for the previous weekday/weekend and put a comment "Checked YYMMDD (previous weekday/weekend) temperature data."**

**b. Please put a comment "Temperature is out of compliance", and notify your supervisor if the refrigerator is out of compliance.**

**c. If you see "LL.LL" appears on the screen of the thermometer for a while, this means the thermometer is not working. Write it down in the comment section and please notify your supervisor.**

**d. If there are any other concerning issues, record it in the comment section and notify your supervisor.**