**OG &PR Compliance KPI Dashboard and Improvement Report**

1. Dashboard Overview

The shared Power BI file provides an intuitive and interactive interface for monitoring key metrics related to PR (Pine Ridge) and OG (Oak Grove). The file contains two dedicated pages, one for each dashboard, accessible via the **bottom-left** tabs.

The design includes a dynamic expansion/collapse feature for efficient navigation. On the PR dashboard, a **plus-shaped icon** allows users to reveal additional content by **holding** the **Ctrl** key and clicking the icon. The icon changes to a **minus** shape to indicate expansion. Similarly, holding Ctrl and clicking the **minus** icon collapses the content, reverting to the original view.

This interactive approach not only ensures a streamlined user experience but also helps reduce the visible size of the dashboard, making it easier to manage and focus on specific data points. By minimizing unnecessary clutter, users can quickly access the most relevant metrics while keeping the overall interface clean and organized.

1.1 Workflow

A diagram of a programming language

Description automatically generated

1.2 Dashboard Explanation

In September, I visualized operational indicators such as **Pre-Treatment FT110**, **Pre-Treatment FT120**, **TOX Flow**, **TOX Combustion**, **GM01**, **GM02**, and **GM03** as bar charts representing their omission and exceedance rates.

* The **"Sep Omission by System"** chart shows the omission rates for September operational indicators, followed by the exceedance rates.
* The next two bar charts represent data from August.
* At the bottom, two tables display the average values calculated by appending queries from both August and September. These tables allow you to see the average omission and exceedance rates for each operational indicator.

1.3. Dashboard Visualization Process

1. Retrieved August and September Compliance Tracker Excel data provided in Power BI.
2. Transformed the Compliance Tracker data to structure the dashboard. The applied transformation steps included:
   * Deleting columns
   * Filtering data
   * Unpivoting columns
   * Transposing columns
   * Converting decimals to percentages
   * Appending columns
3. After transforming the August data, I expected the logic to automatically apply to the incoming September data, but it did not. Since Power BI does not fully support automated transformation processes, I determined that creating a separate transformation program was necessary.
4. Using the transformed data, I created bar charts and table charts for visualization.

2. Improvement of Data Transformation & Retrieval

Due to the issue with automated transformation mentioned above, I developed a transformation program using Python. Below is an explanation of how the program operates:

1. The program takes data as input using the file path of the Excel files such as “Compliance Tracker Rev.2 - 202408 OG”.
2. Two separate Python programs are used:
   * **OG\_DataProcessing.py**: Processes OG data.
   * **PR\_DataProcessing.py**: Processes PR data.  
     These programs are separate because the data formats for OG and PR differ, requiring distinct logic for each.
3. The program reads the file, and if the file name includes, for example, **"202408 OG"**, it automatically splits and saves the data into two files: **08\_OG\_Omission.csv** and **08\_OG\_Exceedance.csv**.
4. Similarly, if the file name includes **"202409 PR"**, it automatically splits and saves the data as **09\_PR\_Omission.csv** and **09\_PR\_Exceedance.csv**.
5. The transformed files can now be automatically imported into Power BI. Using the **Get Data** feature in Power BI, the updated data can be fetched automatically via the path to OneDrive or a folder.
6. The automatically updated data in Power BI will be reflected in the dashboard, making it much easier to maintain and manage the dashboard.