I have chosen to follow the path of Carbon Monoxide (CO) when using the OpenWeatherMap API simply because this was first in the JSON list. New Zealand has a national ambient air quality guideline of threshold of 10 mg/m3 as a 1-hour average however OpenWeatherMap gives information via their API every 10 minutes. I had thought of making a list to then check the average every hour, populating with 6 values and then popping the oldest value as soon as a new one comes in; however, it was just simpler to take the 1-hour average and make it 10-minute average with a simple calculation of 10 divided by 6 resulting in a 1.67 mg/m3 (rounded to two decimal places). This allowed me to have an easier conversion to Micrograms, the unit that OpenWeatherMap gives Carbon Monoxide in.

A simple threshold check between what OpenWeatherMap gives and 1670 Micrograms (μg) is used to make a conditional to send information to the second SCB to flash the alarms if needed.