

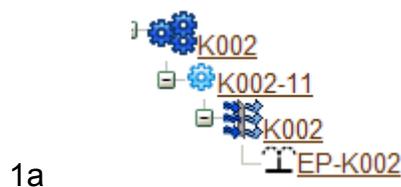
Correct profile configurations are very important to facilities and to Ohio EPA. The configurations play an important role in the calculating emissions because they identify how the emissions flow from a process to an egress point. The web application is designed to be flexible and it allows great variability in configurations. As a result of this flexibility, although a facility has correctly identified the devices (process, controls and egress points) in the profile, the facility may not have properly connected them. The most common mistake is to show parallel air flows from a process. Below are examples of correct and questionable/incorrect profiles:

NOTE: The naming conventions that describe the process, controls and egress points in the facility tree should be either the true company identifier or a name that is most commonly referred to at the facility. If there is a single fugitive egress point (EP) at the facility, the EP can be defined as “Vent” or “EP Fugitive”. If multiple fugitive release points are at the facility, the EP should be better defined such as “Vent#15” or “EP-FUGITIVE#15” to distinguish it from other egress points.

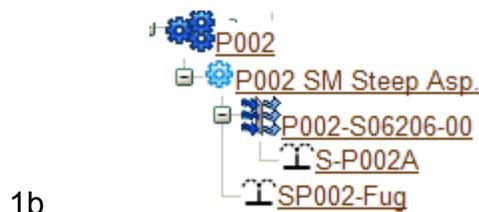
I. Correct Profile Tree Configurations for Significant Units.

(several correct scenarios depicted below)

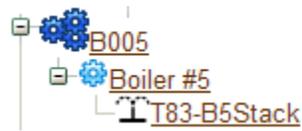
1. One emissions unit with one process, one control, and one stack which must follow air flow (All in series)



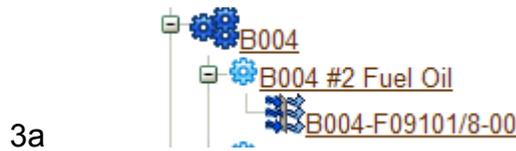
If the control equipment [captures less than 100 %](#), it is preferable to show the fugitive egress point linked to the process as shown below



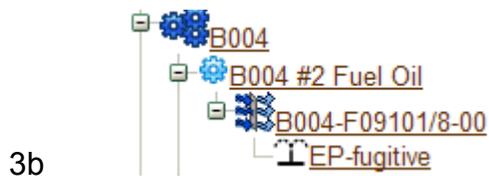
2. One emissions unit with one process, NO control, and one stack which must follow air flow (All in series)



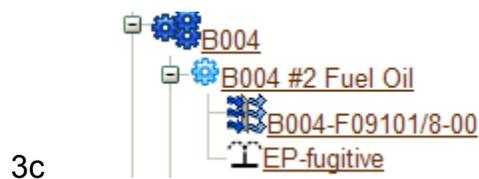
3. One emissions unit with one process, one control and no stack. (All in series)
This means all emissions from the control are fugitive



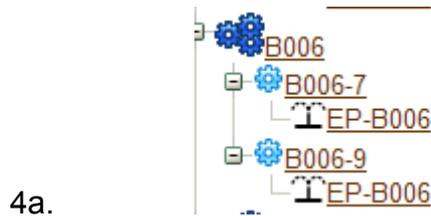
This configuration therefore, needs a fugitive egress point which can follow the actual air flow similar to having a stack as shown below



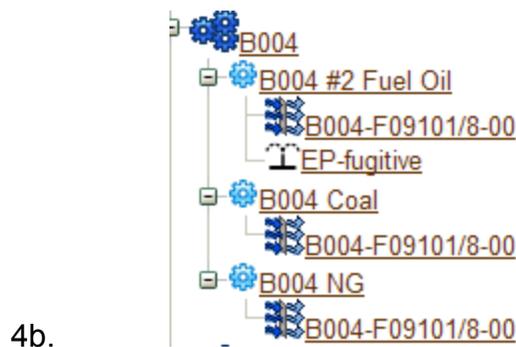
OR it can be connected directly to the process without having to follow the air flow as shown below



4. One emissions unit with 2 Processes in parallel, NO Control, and a stack for each process (each stack is in series with its own process)

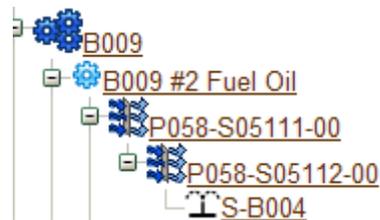


In cases where multiple processes have multiple fugitive egress points, there is no need to display several fugitive EP, one for the entire emissions unit is sufficient as shown below. This fugitive EP can be linked to any process or any control as long as it is identified as a “fugitive type”. Stack EP must follow air flow.



For an operation that burns multiple fuels, it is acceptable to have multiple processes to designate different fuels as shown above.

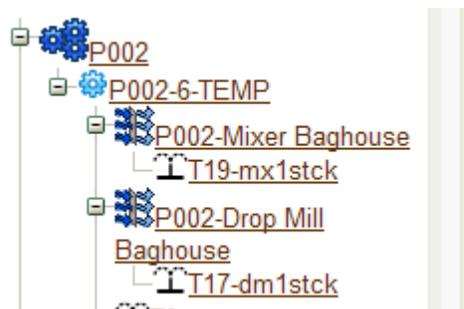
- One emissions unit with one Process, 2 Controls in series, and one stack (EP is in series with the last control)



II. Questionable Profile Tree Configurations for Significant Emissions Units.

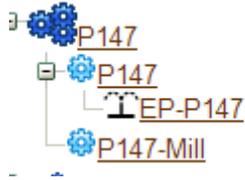
(These configurations are suspect. They require follow-up with the facility to determine their validity)

- One emissions unit with one process and 2 controls in parallel (i.e., some of the air stream from the process goes to one control and some goes to another) with a different stack associated with each control



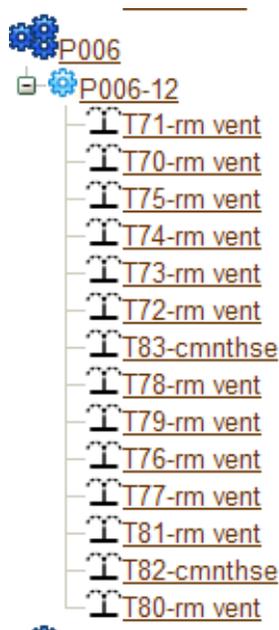
It is extremely rare to have control devices connected in parallel for a given process. The above configuration implies 50% of process flow goes to each control device. This is a common mistake that needs to be corrected. This type of configuration requires additional details which can only be ascertained from the facility contact and usually the correct configuration is to have the control devices in series with the emissions from the second control going to one or more stacks.

7. One unit with 2 processes with only one stack for one process.



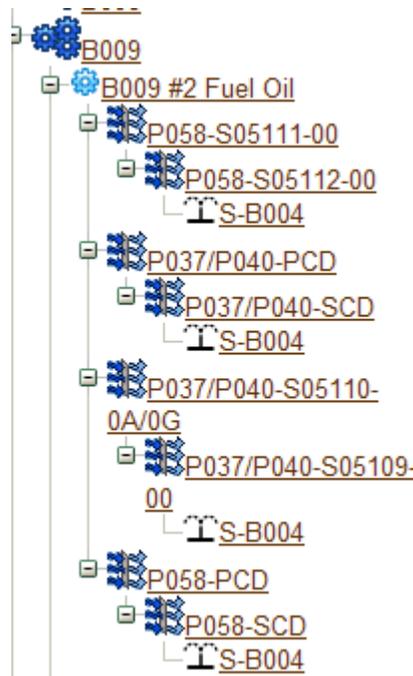
This configuration may be correct as it stands or it may be missing another EP be it a stack or fugitive. Most times though, the configuration shown here is incorrect and should look like number 4a above.

8. One emissions unit with one process and 14 egress points (All EP in parallel)



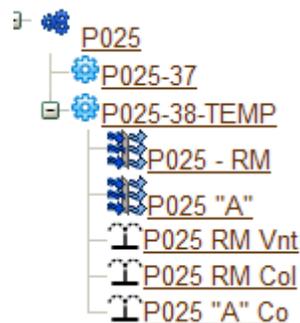
Most processes have either one or two egress points. In few rare cases, there may be a significant number of egress points. Those cases need to be carefully evaluated. If the egress points are Stacks and the company took the time to carefully identify all of them in the facility tree, the tree should not be changed. If the egress points are Fugitives, the facility tree could be simplified and allocate the process flow into one or two fugitive Egress Points only. This simplification should clean up complex facility tree configurations.

9. One unit with one process and 8 controls in parallel and in series.



This configuration contains too many controls for one process. It is highly unlikely that this process has so many controls

10. One emissions unit with 2 processes. One process has 2 parallel controls and 3 parallel stacks



This configuration does not indicate which control goes with which process nor which stack goes with which control. There is an “extra” stack. It is not clear where the “extra” stack belongs. It is unlikely that all the controls and stacks belong to one process while the other process is not controlled and/or tied to a stack.