Process Column Maintenance and Inspection

Process columns are often the workhorses of the petro-chemical process industries, and at times, it is necessary to physically inspect the interior of a column.

Who inspects? Whenever a process column is opened for inspection, it is important that it be inspected and analyzed by a qualified process engineer, who has been trained in what to look for.

Typically, inspections are carried out by a number of different departments, each one focused on its particular area of concern. Column components are usually inspected by the maintenance inspection department.

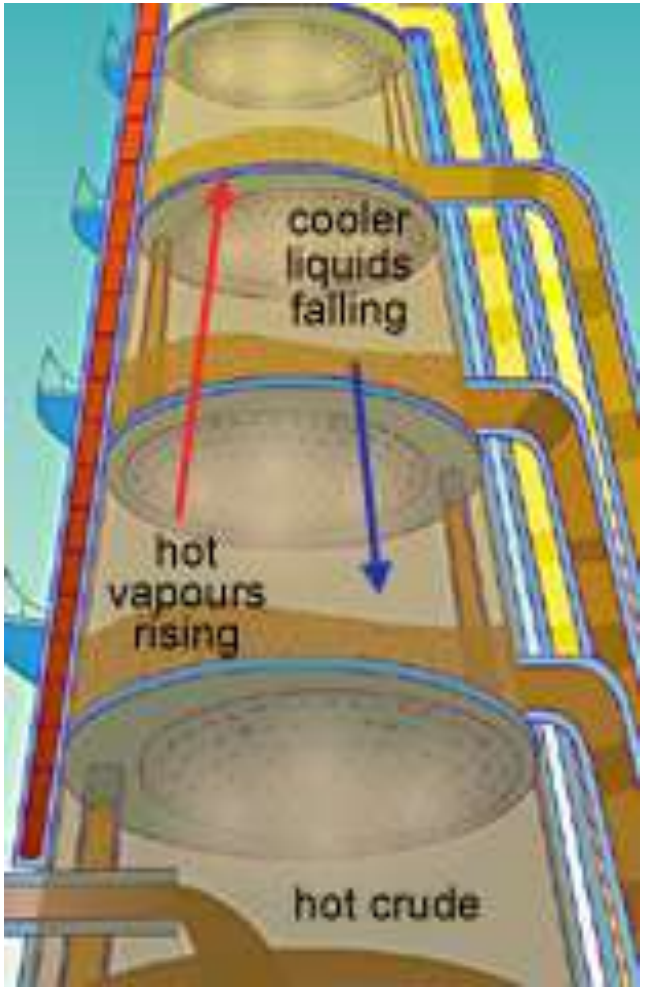
The production department would oversee the isolation and entry into the column as well as making sure the column is clean or if it has accumulated process products.

The process department inspector is usually responsible for critically analyzing changes made in a column and for identifying potential operational problems.

The maintenance crews, however, do not always understand how a column works, and might therefore make decisions on repairs that are not appropriate. It is essential to have people who are knowledgeable about the process to critically analyze and address these types of details in the column.

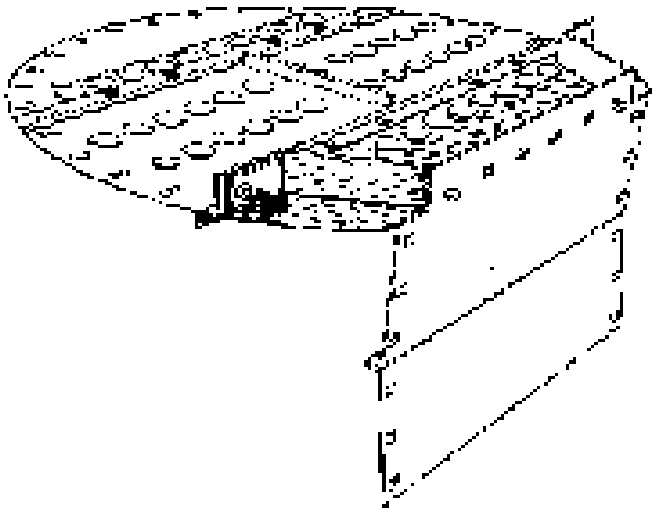
A column inspection can be very tedious and may involve working in cramped and very often dirty areas. It is necessary to remain inside the tower for hours, but it is essential the work in carried out to a high standard as it is impossible to easily go back when the tower is back in operation.

Maintenance mainly consists of gaining entry into the column which is closely controlled by operations, then working through the tray system at different levels and will usually involve the removal of some segmented trays for inspection and repair.



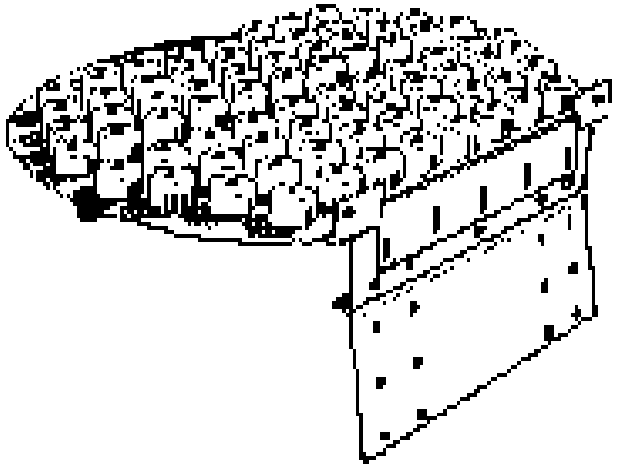
Sieve Tray Plate

In the sieve tray plate, vapour bubbles up through simple holes in the tray through the flowing liquid.



Bubble cap tray

Vapour or gas rises through the opening in the tray into bubble caps The gas flows through slots in the periphery of each cap and bubbles upward through the flowing liquid.



As the inspection work is completed all repairs and tray replacement must be carried out to a high standard ensuring all internal gaskets and sealing are correctly installed and no maintenance equipment is left in the column

END OF PRESENTATION
ANY QUESTIONS