# Texas Commission on Environmental Quality

# Table 15

# Adsorbers

| **Equipment Information** |
| --- |
| Emission Point Number (EPN) *(from Flow Diagram)*: |
| Manufacturer: | Model No. *(if available)*: |
| Name of Abatement Device: |
| Type of Air Contaminant Controlled: |
| **Gas Stream Characteristics** |
| **Components** | **Mole %** |
|  |  |
|  |  |
|  |  |
|  |  |
| **Total Flow Rate (acfm)** |
| Design Maximum: | Average Expected: |
| Gas Stream Temperature (°F): | Operating Pressure (psia): |
| Material to be adsorbed *(chemical name of adsorbate)*: |
| **Adsorbent Characteristics** |
| Type of Adsorbent *(manufacturer and grade number)*: |
| Bed Depth (ft): | Bed Volume (ft3): |
| Saturation Capacity of Pollutant on Adsorbent (specify units): |
| Length of Mass Transfer Zone (inches): |
| Claimed adsorber control efficiency[[1]](#footnote-1):  |
| **Equilibrium Data** |
| Attach equilibrium adsorption isotherm for pollutant over adsorbent at estimate operating temperature. [ ]  |
| **Regenerative Systems** |
| Residual change – weight of adsorbate remaining on adsorbent after regeneration  |
| (lbs adsorbate/lb adsorbent): |
| Adsorption Time Per Bed (minutes): |
| Regeneration Time Per Bed (minutes): |
| Number of Beds: |

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# Table 15

# Adsorbers

| **Regenerative Systems *(continued)*** |
| --- |
| Describe disposition of contaminant after regeneration (or during desorption step): |
|  |
|  |
|  |
|  |
| **Additional Information Required** |
| Attach the following: |
| [ ]  Details regarding principle of operation.  |
| [ ]  An assembly drawing (Front and Top Views) of the abatement device, dimensioned and to scale clearly showing the design, size, shape. If the devices have bypasses, safety valves, etc., include in drawing and specify when such bypasses are to be used and under what conditions. |

1. Attach supporting documentation. [↑](#footnote-ref-1)