

TCEQ CHEMICAL SOURCES CURRENT BACT REQUIREMENTS FOR MSS ACTIVITIES

Equipment Leak Fugitives

This information is maintained by the CHEMICAL NSR Section and is subject to change. Last update 11/17/2006

| Year | Source Type | Pollutant | Minimum Acceptable Control | Control Efficiency or Details |
|------------|--|--|--|---|
| 2006 | Equipment Leak Fugitives | Uncontrolled VOC emissions < 10 tpy | Same as current BACT requirements, except as stated on this table. | Same as current BACT requirements, except as stated on this table. |
| | | Approved odorous compounds: NH ₃ , Cl ₂ , H ₂ S, etc. | Same as current BACT requirements, except as stated on this table. | Same as current BACT requirements, except as stated on this table. |
| | Pump Maintenance | VOC <0.5 psia | Send to a closed drain system. Drain any remaining liquid to a pan, then pump to a vacuum truck or put in a closed container. | Alternative: Drain to an absorbent pad and properly dispose of it. |
| | | VOC >0.5 psia | Send material to the flare knockout drum to separate into vapors, light liquids, and heavy liquids. Vapors are routed to flare. Liquids go to slop drums or strippers. Drain any remaining liquid to a pan then pump to a vacuum truck or put in a closed container. | Alternative 1: Send the material to the refinery slop drums to be recovered. If there is any remaining liquid in the system, drain it to a pan then pump to a vacuum truck or put in a closed container. |
| | | | | Alternative 2: Drain to a recovery tank that is vented to the flare. Drain any remaining liquid to a pan then pump to a vacuum truck or put in a closed container. |
| | | | | Alternative 3: Steam material to the enclosed sewer. Collect hydrocarbons in the unit sump, to be pumped to the slop tanks and recycled. If any liquids remain, steam or drain to a pan, then pump to vacuum truck or put in closed container |
| | | Acid | Neutralize acid with caustic and drain to the sewer. | |
| | Sour water | Route sour water to the sour water unit. | Alternative: Pump sour water to sour water strippers | |
| | Sulfur | Clear sulfur to pits or sump. | | |
| | Pipe Maintenance | VOC <0.5 psia | Send to a closed drain system. Drain any remaining liquid to a pan, then pump the material to a vacuum truck or put in a closed container. | |
| | | VOC > 0.5 psia | Send material to the flare knockout drum to separate into vapors, light liquids, and heavy liquids. Route the vapors back through the process to be recovered before going to the flare using the recovery compressors, where available. Route vapors to flare. Route liquids to slop drums or strippers. Drain any remaining liquid to a pan, then pump to a vacuum truck or put in a closed container. | Alternative 1: Drain material to a recovery tank that is vented to the flare. Drain any remaining liquid to a pan, then pump the material to a vacuum truck or put in a closed container. |
| | | | | Alternative 2: Send the material to the refinery slop drums to be recovered. Drain any remaining liquid to a pan, then pump the material to a vacuum truck or put in a closed container. |
| Sour Water | Route sour water to the sour water unit. | Alternative 1: Pump sour water to sour water strippers Alternative 2: Send sour water to a frac tank. Verify that there are no emissions from frac tanks. | | |

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| | | Sulfur | Clear sulfur to pits or sump. | |
| | | Fuel gas | Purge fuel gas, natural gas, and LNG to the furnace and/or waste heat boiler. | |
| | | Acid | Neutralize acid with caustic and drain to the sewer | |
| | Valve Maintenance | VOC < 0.5 psia | Send to a closed drain system. Drain any remaining liquid to a pan, then pump to a vacuum truck or put in a closed container. | |
| | | VOC > 0.5 psia | Send material to the flare knockout drum to separate into vapors, light liquids, and heavy liquids. Route the vapors back through the process to be recovered before going to the flare using the recovery compressors, where available. Route vapors to flare. Route liquids to slop drums or strippers. Drain any remaining liquid to a pan, then pump to a vacuum truck or put in a closed container. | Alternative 1: Send the material to the refinery slop drums to be recovered. Verify that there are no emissions from sending the material back to the process to be recovered. If there is any remaining liquid in the system, drain it to a pan, then pump to a vacuum truck or put in a closed container. Alternative 2: Steam material to the enclosed sewer. Collect hydrocarbons in the unit sump, to be pumped to the slop tanks and recycled. If any fluid remains, steam or drain it to a pan then pump the material to a vacuum truck or put in a closed container. |
| | | Sour water | Route sour water to the sour water unit. | Alternative: Pump sour water to sour water strippers. Alternative: Send sour water to a frac tank. Verify that there are no emissions from frac tanks. |
| | | Sulfur | Clear sulfur to pits or sump. | |
| | Compressor Maintenance | VOC | Send material to the flare knockout drum to separate into vapors, light liquids, and heavy liquids. Route the vapors back through the process to be recovered before going to the flare using the recovery compressors, where available. Route vapors to flare. Route liquids to slop drums or strippers. Drain any remaining liquid to a pan, then pump to a vacuum truck or put in a closed container. | Alternative: Steam material to the enclosed sewer. Collect hydrocarbons in the unit sump, to be pumped to the slop tanks and recycled. If any fluid remains, steam or drain it to a pan then pump the material to a vacuum truck or put in a closed container. |
| | | Acid/Sulfur Recovery Unit Tail Gases | Clear acid gas, wastewater acid gas, and tail gas to reactor burners or incinerators. Send the remainder of the material to the acid gas flare. | |