Texas Commission on Environmental Quality
Air Permits Division

New Source Review (NSR) Boilerplate Special Conditions

This information is maintained by the Chemical NSR Section and is subject to change. Last update was made **August 2011**. These special conditions represent current NSR boilerplate guidelines and are provided for informational purposes only. The special conditions for any permit or amendment are subject to change through TCEQ case-by-case evaluation procedures [30 TAC 116.111(a)]. Please contact the appropriate Chemical NSR Section management if there are questions related to the boilerplate guidelines.

Wastewater - Collection system (W), Treatment plant (TP)

Collection (W)	*(BACT for site wastewater emissions greater than 10 tpy)* Process wastewater drains shall be equipped with water seals or equivalent; lift stations, manholes, junction boxes, any other wastewater collection system components, and conveyance, *(add if WWTP, storage, and treatment system to the biological treatment unit)* shall be equipped with a closed vent system that routes all organic vapor to a control device. Water seals shall be checked by visual or physical inspection quarterly for indications of low water levels or other conditions that would reduce the effectiveness of water seal controls. Water seals shall be restored as necessary within 24 hours. Records shall be maintained of these inspections and an corrective actions taken. *(if site wastewater emissions < 10 tpy)* Process wastewater shall be immediately directed to a covered system. All lift stations, manholes, junction boxes, conveyances, and any other wastewater facilities shall be covered to minimize emissions.
Control device	*Control and monitoring requirements, as applicable such as flare or vapor oxidizer*
Flow (TP)	The daily wastewater flow into the wastewater treatment plant shall be monitored and recorded. The rolling 12-month wastewater flow shall be totaled on a monthly basis.
Solids (TP)	*(For activated sludge biological treatment)* The minimum mixed liquor total suspended solids (MLSS) concentration in the aeration basins on a daily average basis shall not be less than ### mg/L *(use the MLSS concentration represented in the Water9 model used to estimate the hourly emission rate, should be no less than 1,000 mg/L.).* The MLSS

concentration is the arithmetic average of all samples collected during the 24-hour period. The MLSS concentrations shall be monitored and recorded daily using Method 160.2 (Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020 or Method 2540D (Standard Methods of the Examination of Water and Wastewater, 18th Edition, American Public Health Association).

Monitoring (TP) Wastewater treatment plant emissions shall be estimated every month using the following procedure.

A. The permit holder shall sample the wastewater prior to the *(identify first facility [ies] the wastewater is directed to for treatment)* monthly to determine the concentrations of all air contaminants. Sampling locations, sampling procedures, test methods and calculations shall be as specified in permit application, PI-1 dated ##. The influent wastewater flow rates shall be measured and recorded when a sample required by this condition is collected. Records of sampling results shall be maintained for all air contaminants.

B. The permit holder shall calculate short-term loading rate in terms of pounds per hour (lb/hr) and rolling 12-month loading rate in terms of tons per year (tpy) for each air contaminant. The measured concentrations of each speciated air contaminant shall be converted to an equivalent mass emission rate based upon the flow rates during the sample collection period using the calculation methods and assumptions in the permit application, PI-1 dated ####. The MLSS used in the emission calculation shall be either the minimum identified in Special Condition # or the measured concentration for the day the sampling required for this condition is completed. The short-term emission rate calculations for such air contaminants shall be based on the concentrations and flow rates measured during sampling. The rolling 12 month emission rate calculation for each air contaminant shall be based on the rolling 12 month average contaminant concentration and the rolling 12 month wastewater flow. All other inputs into the calculation shall match those in the permit application for that averaging period (worst case). Total VOC mass emission rates shall be calculated as the sum of the individual speciated VOC mass emission rates.

C. All air contaminants ascertained by the analytical methods shall be evaluated. For any tentatively identified air contaminant that can be confirmed as present and that would have a calculated air contaminant mass emission rate more than 0.04 pound per hour (lb/hr) above that represented in the permit application, PI-1 dated ###, the total emissions of that compound must satisfy the following:

i. *(Case specific criteria based on modeling performed. See chemical flexibility condition part C for examples)*

ii. The Effect Screening Level (ESL) for an air contaminant shall be obtained from the current TCEQ ESL list or by written request to the TCEQ Toxicology Section.

iii. The information below shall be recorded for the air contaminant.

(a) Chemical name(s), composition, and chemical abstract registry number if available.

(b) True vapor pressure at maximum hourly and annual average temperature.

(c) Molecular weight.

(d) Date air contaminant was detected in the sample and the demonstration required in (i).

(e) Material Safety Data Sheet or equivalent.

(f) Concentration of air contaminant detected in the wastewater.

D. Records of sampling location, sampling procedures, sample chain of custody forms, test methods, sampling results, calculated emission rates, and sample of calculations shall be maintained.

[A well designed and operated waste water treatment plant should limit air emissions to < 10% of the initial hydrocarbon in the water entering the plant. Additional BACT evaluation should be done if this is not the case]