

Appendix Q, Table Q-7: BACT Comparison Tables

BACT Guidelines at Other Air Districts

Air District	VOC	Date of Update
Texas Commission on Environmental Quality (TCEQ)	Specify which is applicable: 1. Uncontrolled VOC emissions < 10 tpy: none 2. 10 tpy < uncontrolled VOC emissions < 25 tpy: 28M leak detection and repair program. 75% credit for 28M. 3. Uncontrolled VOC emissions > 25 tpy: 28MHP leak detection and repair program. 97% credit for valves, 85% for pumps and compressors. 4. VOC vp < 0.002 psia: no inspection required, no fugitive emissions expected. 5. For emissions of approved odorous compounds (chlorine, ammonia, hydrogen sulfide, hydrogen cyanide and mercaptans only): AVO inspection twice per shift. Appropriate credit for AVO program.	2011
South Coast Air Quality Management District (SCAQMD)	All components in VOC service except for pumps, compressors and drains: 200 < leak < 1,000 ppm measured as methane shall be repaired within 14 days. Leak > 1,000 ppm shall be repaired according to Rule 1173. All pumps, compressor and drains: 500 < leak < 1,000 ppm measured as methane shall be repaired within 14 days. Leak > 1,000 ppm shall be repaired according to Rule 1173.	12/5/2009
San Joaquin Valley AQMD	Valves & Connectors: 100 ppm Pump & Compressor Seals: 500 ppm	7/22/2020
Santa Barbara AQMD	BACT Technologies. Valves, Flanges, pump seals, compressor seals, pressure relief valves/devices, other components: 100 ppm	11/20/2017
Sacramento Metropolitan AQMD	None	n/a

EPA RACT/BACT/LAER Clearinghouse: Keyword "Equipment Leak"

RBLCID	FACILITY NAME	DATE DETERMINATION LAST UPDATED	PROCESS NAME	POLLUTANT	CONTROL METHOD DESCRIPTION	EMISSION LIMIT 1	EMISSION LIMIT 1 UNIT	EMISSION LIMIT 1 AVG TIME CONDITION	EMISSION LIMIT 2	EMISSION LIMIT 2 UNIT	EMISSION LIMIT 2 AVERAGE TIME CONDITION	POLLUTANT COMPLIANCE NOTES
IA-0106	CF INDUSTRIES NITROGEN, LLC - PORT NEAL NITROGEN COMPLEX	5/4/2016	VOC Emissions from Equipment Leaks	Volatile Organic Compounds (VOC)	Leak Detection and Repair (LDAR) Monitoring System		1.1 TONS/YR	ROLLING TWELVE (12) MONTH TOTAL	0			
IA-0111	DES MOINES SOYBEAN PROCESSING PLANT	7/6/2016	Equipment Leaks	Volatile Organic Compounds (VOC)	Leak Detection and Repair (LDAR) Monitoring System		788 TONS/YR	ROLLING 12-MONTH TOTAL	0			Work practice requirements so no short term limit.
IL-0115	WOOD RIVER REFINERY	7/6/2016	EQUIPMENT LEAKS/FUGITIVE EMISSIONS	Volatile Organic Compounds (VOC)	LDAR BUT LOWER LEAK DEFINITION FOR VALVES IN G/LL SERVICE (500 PPM) AND PUMP SEALS IN LL (2000 PPM); LOW EMISSION VALVES WHERE APPROPRIATE.		0		0			40 CFR 63 Subpart H plus the following: b. The Permittee shall monitor affected components to detect leaks by the method specified in 40 CFR 63.180(b), except that a more stringent definition of a leak shall apply, i.e., an instrument reading of 500 parts per million or greater from valves in gas and light liquid service and an instrument reading of 2,000 ppm or greater from pumps in light liquid service shall be considered a leak. c. The Permittee shall install the following low emission components associated with the affected product tank (Tank 2003). i. Dual mechanical seals for all pumps in gas/vapor or light liquid service as defined by 40 CFR 63.161. ii. Low emission valves for all valves in gas/vapor or light liquid service as defined by 40 CFR 63.161.
IL-0119	PHILLIPS 66 PIPELINE LLC	9/14/2016	Equipment Leaks / Fugitive Emissions	Volatile Organic Compounds (VOC)	LDAR		0		0			
IN-0173	MIDWEST FERTILIZER CORPORATION	5/4/2016	FUGITIVE EMISSIONS FROM EQUIPMENT LEAKS	Volatile Organic Compounds (VOC)	LEAK DETECTION AND REPAIR (LDAR) PROGRAM USING 40 CFR 60, SUBPART VVA PROCEDURES		0		0			
IN-0180	MIDWEST FERTILIZER CORPORATION	5/5/2016	FUGITIVE EMISSIONS FROM EQUIPMENT LEAKS	Volatile Organic Compounds (VOC)	LEAK DETECTION AND REPAIR (LDAR) PROGRAM USING 40 CFR 60, SUBPART VVA PROCEDURES		0		0			

*IN-0324	MIDWEST FERTILIZER COMPANY LLC	5/12/2022	Fugitive emissions from equipment leaks F-1	Volatile Organic Compounds (VOC)		0			0	Fugitive VOC emissions shall be controlled by a Leak Detection and Repair (LDAR) program. The leak detection and repair program specified in 40 CFR 63, Subpart V is shall serve as BACT for VOC fugitive emissions.
*IN-0345	EVONIK CORPORATION TIPECANOE LABORATORIES	3/23/2022	Bulk Chemical Manuf. Equipment Leaks/Fugitive	Volatile Organic Compounds (VOC)		0	MONTHLY SENSORY BASED MONITORING		0	(1)When equipment is operating as affected facilities under 40 CFR 63, Subpart GG, VOC BACT for equipment leaks is an LDAR program as specified in 40 CFR 63.1255. (2)When equipment is operating as affected facilities under 40 CFR 63, Subpart DD, VOC BACT for equipment leaks is an LDAR program as specified in 40 CFR 63.691. (3)When equipment is operating as affected facilities under 40 CFR 63, Subpart FFFF, VOC BACT for equipment leaks is an LDAR program as specified in 40 CFR 63.2480. (4)When equipment is operating as affected facilities under 40 CFR 63 Subparts F, G, or H, VOC BACT for equipment leaks is an LDAR program as specified in 40 CFR 63, Subpart H. (5)The VOC BACT for equipment leaks
KY-0112	WESTLAKE VINYL, INC.-PVC PLANT	4/6/2021	Fugitive Equipment Leaks (EU20)	Volatile Organic Compounds (VOC)	includes: proper labeling and following the requirements in 40 CFR 63, Subpart UU and following good work practices including: 1. Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes based on the material. 2. New and reworked buried connectors shall be welded. 3. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be reasonably accessible for leak checking during plant operation. 4. Damaged, leaking, or severely rusted valves, connectors, compressor seals, agitator seals, and pump seals found by visual inspection to be leaking (e.g., process fluids) shall be tagged and replaced or repaired. All leaking components that cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging.	0			0	For pumps subject to 401 KAR 51.017, the permittee shall install leakless pumps with dual mechanical seals or with a barrier fluid to reduce leaks. If a leakless pump is not feasible, the permittee shall submit justification as to its technical infeasibility. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through. In addition, all connectors in gas/vapor and light liquid service shall be monitored annually with an approved gas analyzer.
LA-0331	CALCASIEU PASS LNG PROJECT	6/19/2019	Fugitive Equipment Leaks	Volatile Organic Compounds (VOC)	Proper piping design and compliance with LAC 33:III 2111.	517/YR	ANNUAL TOTAL		0	

MD-0045	MATTAWOMAN ENERGY CENTER	5/13/2016	EQUIPMENT LEAKS	Volatile Organic Compounds (VOC)		0						VOC LAER FOR THE NATURAL GAS PIPELINE COMPONENTS ASSOCIATED WITH THE PIPELINE SHALL BE THE IMPLEMENTATION OF AN AUDIBLE, VISUAL, AND OLFACTORY (AVO) PROGRAM PLAN ON SITE FOR THE REVIEW UPON REQUEST BY MDE-ARJAK. IN ACCORDANCE WITH THE AVO PROGRAM PLAN, THE INSPECTIONS SHALL BE DOCUMENTED, LEAKS IDENTIFIED FROM THE AVO ASSESSMENT SHALL BE REPAIRED WITHIN FIVE DAYS OF DISCOVERY, REPAIRS DOCUMENTED, AND ASSOCIATED REPAIR RECORDS MAINTAINED.
OH-0368	PALLAS NITROGEN LLC	6/19/2019	Urea Process Equipment Leaks (E004)	Volatile Organic Compounds (VOC)	Leak detection and repair (LDAR) and comply with work practice standards in 40 CFR 60.482-5a-4f/ 60.602-11a as applicable for all equipment in VOC service.	4.1	LB/H		17.9	T/YR	PER ROLLING 12 MONTH PERIOD	
OK-0148	BUFFALO CREEK PROCESSING PLANT	5/11/2018	Fugitive Equipment Leaks (Natural Gas Plant)	Volatile Organic Compounds (VOC)	LDAR.	0			0			Comply with baseline NSPS, Subpart D000.
OK-0156	NORTHSTAR AGRICULTURE	5/11/2018	Equipment Leaks	Volatile Organic Compounds (VOC)	Leak Detection and Repair (LDAR)	0			0			NFPA 36/Monitoring
OK-0176	BPV GATHERING AND MARKETING CUSHING STATION	5/11/2018	FUGITIVE EQUIPMENT LEAKS	Volatile Organic Compounds (VOC)	Conduct and record AVO observations.	217.24	TONS/YEAR/FACILITY		0			40 CFR Part 112
OK-0180	CUSHING TERMINAL	9/10/2021	FUGITIVE EQUIPMENT LEAKS	Volatile Organic Compounds (VOC)	Conduct and record AVO observations. Prepare, implement, and maintain SPCC plan. Records of inspections, identified leaks, and corrective actions.	0			0			Addresses increase from additional (added) components.
TTN-0163	HOLSTON ARMY AMMUNITION PLANT	3/21/2019	Fugitive Equipment Leaks	Volatile Organic Compounds (VOC)	Comply with NSPS VVa work practices	0			0			
TX-0731	CORPUS CHRISTI TERMINAL CONDENSATE SPLITTER	5/16/2016	Petroleum Refining Equipment Leaks/Fugitive Emissions	Volatile Organic Compounds (VOC)	Quarterly instrumental monitoring using a method 21 gas analyzer for all valves, pump seals, compressor seals, and agitator seals with a leak definition of 500 parts per million volume (ppmv) for valves and 2,000 ppmv for pump, compressor and agitator seals. Leaking components must be repaired within 15 days of detection of the leak.	36.6	TPY		0			
TX-0765	SUNOCO MARINE VESSEL LOADING OPERATIONS	7/6/2016	Petroleum Refining Equipment Leaks/Fugitive Emissions	Volatile Organic Compounds (VOC)	Quarterly instrumental monitoring using a method 21 gas analyzer for all valves, pump seals, compressor seals, and agitator seals with a leak definition of 500 ppmv for valves and 2,000 ppmv for pump, compressor and agitator seals. Leaking components must be repaired within 15 days of detection of the leak.	10.13	TPY		0			28V-HP
TX-0797	CORPUS CHRISTI TERMINAL	7/29/2016	Petroleum Refining Equipment Leaks/Fugitive Emissions	Volatile Organic Compounds (VOC)	Fugitive Leak Detection and Repair (LDAR) per the 28 MID Monitoring program that requires quarterly monitoring of all components with a leak definition of 500 ppmv and directed maintenance.	500	PPM		33.1	T/YR		SP Subchapter D 44" Petroleum Refining, Natural Gas Processing, and Petrochemical Processes.
TX-0811	LINEAR ALPHA OLEFINS PLANT	11/16/2017	SOCMI Equipment Leaks	Volatile Organic Compounds (VOC)	Quarterly instrumental monitoring of all accessible piping components (pumps, compressors, valves, flanges) in vapor and light liquid service with a leak definition of 500 ppmv VOC. Weekly audio-visual-olfactory monitoring for all components in heavy liquid service. Upon detection of a leak, a first attempt must be made to repair within 5 days, and repairs must be	6.87	T/YR		0			MACT 44FF, 30 TAC 115, SUBCHAPTER H