

**2020 AirToxScreen Emissions Updates
(6/10/2024)**

Emissions for the sources listed below have changed since EPA completed the modeling step of the AirToxScreen analysis. This list includes sources with:

- Known changes to emissions that occurred *after 2020* (and therefore are not reflected in AirToxScreen)
- Changes that EPA incorporated into the AirToxScreen results via post-modeling corrections
- Recent corrections to 2020 emissions that are *not* reflected in the AirToxScreen results

1. Known changes to Emissions that occurred after year 2020

AirToxScreen reflects emissions in 2020. The following facilities have had reductions, corrections, or elimination of emissions since 2020. There are additional shutdowns that have occurred, the ones listed here have been featured on the AirToxScreen Mapping Tool. This should be considered in your use of AirToxScreen to prioritize pollutants or sources for further study.

Facility Shutdowns:

EPA Region	State	County	EIS Facility ID	Facility Name	Emissions by pollutant (year 2020 tons)
3	WV	Brooke	4864311	MOUNTAIN STATE CARBON, LLC	Benzene 1.24E+01 Coke Oven Emissions 5.63E+00 Naphthalene 2.66E+00 Nickel 2.34E-04 Cadmium 1.22E-04 Chromium (VI) 6.24E-06
4	GA	Hall	16721011	KUBOTA MANUFACTURING OF AMERICA CORP	Chromium (VI) 1.08E-05 Lead 4.50E-05 Manganese 1.39E-02 Nickel 4.50E-05
4	NC	Randolph	7842111	Arrow International, Inc. - Asheboro	Ethylene Oxide 2.45E-01
4	NC	Rowan	14638611	Centurion Medical Products Corporation	Ethylene Oxide 5.40E-02
4	TN	Shelby	2845011	Sterilization Services Of Tennessee	Ethylene Oxide 1.50E+00

EPA Region	State	County	EIS Facility ID	Facility Name	Emissions by pollutant (year 2020 tons)
5	IL	Winnebago	4513311	Chemtool	Hydrazine 0.2184 Nickel 1.05E-05 Cadmium 5.49E-06 Chromium (VI) 2.80E-07
5	IL	Kane	1910611	Pamarco Inc	Chromium (VI) 4.72E-01
5	OH	Cuyahoga	8251111	M.P.C. Plating, Inc. (1318000838)	Formaldehyde 2.50E-01 Nickel 1.25E-01
5	WI	Dane	18988311	American Contract Systems, Inc.	Ethylene Oxide 3.54E-02
6	TX	Harris	4058511	GREENS BAYOU PLANT	Benzene 3.63E-04 Formaldehyde 1.00E-04 Naphthalene 6.14E-05 Acetaldehyde 1.93E-05 Chromium (VI) 4.73E-07 and others of less significance
7	KS	Leavenworth	15259611	Henke Mfg.	Chromium Trioxide 4.72E-01
9	CA	Los Angeles	10273411	COAST PLATING INC	Chromium (VI) 0.00000199

Unit Shutdowns:

EPA Region	State	EIS Facility ID	Facility Name	Unit Description	ethylene oxide modeled (Year 2020 Tons)
5	MI	4173711	Viant Medical Inc.	Ethylene oxide - Viant Medical has signed a consent order to stop sterilizing medical devices using ethylene oxide (EtO) at its plant in Grand Rapids, Mich. by Dec. 31, 2020	3.52E-05
5	MI	5888411	Centurion Medical Products	Ethylene oxide – Stopped ethylene oxide sterilization by end of Oct 2021	5.79E-02
8	UT	7559211	University of Utah- University of Utah facilities	Ceased ethylene oxide sterilization on July 16, 2022.	2.35E-02
9	AZ	1013511	Tri-State Hospital Supply Corp (a.k.a. Centurion Medical Products)	Ethylene oxide – stopped ethylene oxide sterilization by Nov 2021	3.80E-01

EPA Region	State	EIS Facility ID	Facility Name	Unit Description	ethylene oxide modeled (Year 2020 Tons)
9	CA	2352911	ABBOTT CARDIOVASCULAR SYSTEMS, INC.	EtO sterilizer at this facility was removed from service as of Summer 2022.	5.58E-06

Emission changes due to installation of control devices and other changes since 2020.

- Arizona:
 - American Contract Systems Inc (Facility ID: 21480611) installed controls for ethylene oxide emissions in 2022.
- Arkansas:
 - Baxter Healthcare Corporation (Facility ID: 1073211) ethylene oxide emission controls installed in 2022.
- California:
 - Sterigenics US, Inc (Facility ID: 10233211) installed controls for ethylene oxide emissions in 2022.
 - Steris, Inc. (Facility ID: 10109911) installed additional controls for ethylene oxide 1/2021.
 - Steris (formerly Cosmed Of California) (Facility ID: 7125311) installed additional controls for ethylene oxide 9/2021.
- Colorado:
 - LIVANOVA (Facility ID: 3868611) installed controls in 2022 to reduce ethylene oxide emissions
- Iowa:
 - American Contract Systems, Inc (Facility ID: ACSIA) installed ethylene oxide controls in 2021.
- Massachusetts:
 - Isomedix Operation, Inc. (Facility ID: 8142611) installed ethylene oxide controls 2/2021.
- Minnesota:
 - Steris Inc. (Facility ID: 6449011) installed control for ethylene oxide July 2021.
- New Jersey:
 - Steris Isomedix Services Inc. (Facility ID: 6721211) installed ethylene oxide controls in 2021.
- New Mexico:
 - Sterigenics-Santa Teresa (Facility ID: 7582111) ethylene oxide emission controls installed in 2022.
- New York:
 - Sterigenics US LLC (Facility ID: 8409411) ethylene oxide emission controls installed January 2021.
- North Carolina:

- Andersen Products, Inc (Facility ID: 13453111) discontinued use of ethylene oxide on December 31, 2020.
- Ohio:
 - American Contract Systems, Inc (Facility ID: ACSOH) installed control for ethylene oxide 4/2021.
 - BASF Corporation (0247040195) (Facility ID: 6372611) installed controls for chromium VI (hexavalent) emissions in 2021.
- Pennsylvania:
 - COSMED GROUP LLC/ERIE (Facility ID: 3765611) installed ethylene oxide controls 8/2022.
 - B BRAUN MED INC/ALLENTOWN (Facility ID: 14657611) installed ethylene oxide controls in 2020.
- South Carolina:
 - LANXESS CORPORATION (Facility ID: 3965211) installed controls to reduce ethylene oxide emissions after 2020 and ethylene oxide emissions have gone down approximately 60% from 2020 to 2022.
 - STERIS-Isomedix Services (Facility ID: 6640211) installed additional ethylene oxide controls in 2/2021. Ethylene oxide emissions in year 2021 were 50 pounds, which is a 94.5 percent reduction from year 2020 emissions of 916 pounds.
- Texas:
 - Midwest Sterilization Corp (Facility ID: 9061511) ethylene oxide emission controls installed after year 2020.
 - Ethicon Inc (Facility ID: 6755311) ethylene oxide emission controls installed after year 2020.
 - Sterigenics U.S. LLC (Facility ID: 9132811) ethylene oxide emission controls installed in 2022.
 - STERIS ISOMEDIX SERVICES (Facility ID: 6888911) ethylene oxide emission controls installed 6/2022.
 - Isomedix Operations, Inc. (Facility ID: 3049411) ethylene oxide emission controls installed 9/2021 and 12/2021.
- Wisconsin:
 - Evonik Corp in Milton (Facility ID: 4953611) - ethylene oxide emissions reduced since 2019 on a voluntary basis with refined emission calculations, removal of equipment, installation of emission reducing components, and implementing an enhanced leak detection and repair program.
 - Evonik Corp in Janesville (EIS Facility ID: 6479611) - ethylene oxide emissions reduced since 2019 on a voluntary basis with refined emission calculations, removal of equipment, installation of emission reducing components, and implementing an enhanced leak detection and repair program.

2. Changes from 2020 NEI – incorporated into the results via post-modeling corrections

- Indiana:
 - Unison Engine Components (Facility ID 9665911). EPA received revised 2020 emissions of cobalt, hexavalent chromium, and nickel and model results were post-processed to account for the update.
- Kansas:
 - Koch & Co. - Seneca (111 N 1st) (Facility ID 3092311). 0.0136 tons of chromium (VI) emissions were corrected to chromium (III) and model results were post-processed to account for the update.
- Massachusetts:
 - CertainTeed (Facility ID 6410611). EPA received revised 2020 emissions of hexavalent chromium that were 94.2% lower than the original emissions and results were post-processed to account for the updated emissions.
- Missouri:
 - SSM HEALTH ST MARYS HOSPITAL (Facility ID 5116411). The location of the facility was incorrect in the inventory and model results have been adjusted to account for the misplacement.
 - SULLIVAN PRECISION METAL FINISHING (Facility ID: 5151111) installed controls in 2020 to reduce hexavalent chromium by 95% and model results were post-processed to account for controls.
- Ohio:
 - LRBG Chemicals (USA) Inc. (0448010370) (Facility ID 9269411). EPA received revised 2020 emissions of 3-methylcholanthrene (a PAHPOM compound) and model results were post-processed to account for the update.
- Oklahoma:
 - REDA PRODUCTION SYS BARTLESVILLE (facility ID 734111). EPA received revised 2020 emissions of hexavalent chromium and model results were post-processed to account for the update.
- Pennsylvania:
 - Dayton Superior Corp (Facility ID 9200411). EPA received revised 2020 emissions of hexavalent chromium and model results were post-processed to account for the update.
 - WATCO TRANSLOADING LLC/INDUSTRY LOT 1 (Facility ID 19000211). EPA received revised 2020 emissions of hexavalent chromium and model results were post-processed to account for the update.
- Texas:
 - BEAUMONT REFINERY (Facility ID 4862411). EPA received revised 2020 emissions of formaldehyde and naphthalene and model results were post-processed to account for the update.
 - CORPUS CHRISTI TERMINAL (Facility ID 5780311). 5.6381 tons of naphtha emissions were misclassified as coal tar. The HAPs associated with naphtha (benzene, toluene, ethylbenzene, xylenes, hexane) were already included in the

2020 AirToxScreen modeling files and results. Model results were post-processed to account for the change.

- TEMPLE (railyard) (Facility ID 19757211). The location of the facility was incorrect and was mistakenly considered a separate facility from the other Temple railyard (Facility ID 14462111), which has emissions reported by TCEQ. Therefore, model results have been adjusted in blocks near the incorrect location.
- Washington:
 - Kenmore Air Harbor (airport) (Facility ID 12141411). Emissions were overestimated due to misclassification of emissions to a military aircraft Source Classification Code (SCC). Formaldehyde emissions were corrected using Commercial Aircraft SCC and lowered by approximately 50%. PAH emissions on toxic weighted basis were also overestimated from the inaccurate SCC. Model results were post processed to account for the updated emissions.
- West Virginia:
 - HUNTINGTON ALLOYS - A SPECIAL METALS CO. (Facility ID 6235711). EPA received revised 2020 emissions of nickel and model results were post-processed to account for the update.
- Wisconsin:
 - DOMTAR A W LLC-NEKOOSA (Facility ID 4208011). EPA received revised 2020 emissions of ethylene dibromide that are 16% of what was modeled and results have been post-processed to reflect the updated emissions.

3. Corrections to 2020 emissions that are not reflected in the AirToxScreen results

These corrections were identified after emissions were modeled and could not be included in the AirToxScreen results.

- Colorado:
 - NONPOINT Oil & Gas emissions. HAP emissions were overestimated, including formaldehyde (which is a cancer risk driver and a chronic non-cancer (respiratory) hazard index driver), and acrolein and acetaldehyde (which also contribute to chronic non-cancer (respiratory) hazard index values) in Weld County and other counties with significant Oil & Gas production activity.

The HAP emissions overestimates were primarily caused by mismatches between the source classification codes reported by Colorado for well pad engines and storage tanks and the HAP Augmentation profiles that EPA used to estimate emissions from reported VOC emissions. For storage tanks, the HAP Augmentation profiles that were used overestimated how much storage tank emissions were routed to a flare instead of being evaporative emissions without a combustion-based control device. This flaring assumption created higher quantities of combustion-based HAP emissions. For well pad engines, the distribution of engine types was based on an outdated HAP Augmentation

profile and the revised estimates reflect the types of engines currently used in the Denver-Julesburg basin based on the reporting from oil and gas operators. To a lesser extent, the overestimates were caused by some emissions being counted in both the point oil and gas data category and the nonpoint oil and gas data category. Most of these duplicate issues were in Weld County, but this issue occurred in 10 different counties.

After working together to identify the root causes of these overestimates, Colorado DPHE and EPA jointly estimate that formaldehyde emissions from the nonpoint oil and gas sector in Weld County Colorado are about 38% less than what was modeled for 2020 AirToxScreen. EPA will apply these changes to other areas of the state in the 2021 release of AirToxScreen modeling.

Given this 38% overestimate of NonPoint Oil and Gas formaldehyde emissions in Weld County, and accounting for risks from source groups other than NonPoint Oil and Gas emissions being unchanged, and accounting for emissions of HAPs other than the ones mentioned above being unchanged, we anticipate that resulting overall 2020 cancer risks in Weld county are all below 100-in-1 million, the highest of which would be 90-in-1 million in blocks 081230018001044, 081230018001043, 081230018001052, and 081230018001042.” Similar reductions in respiratory Hazard Indexes from this rough recalculation are also anticipated for Weld County.

- Delaware:
 - CRODA INC. (Facility ID 588911). Please note that this 2020 data includes emissions resulting from non-compliance and does not represent normal operation.
- Kansas:
 - OWENS CORNING INSULATING SYSTEMS LLC (Facility ID 17958611). HAP emissions (15.796 tons carbonyl sulfide and 2.4705 tons formaldehyde) at this location were modeled in error. The emissions of these HAP were already accounted for at Facility ID 17938211 in Jasper County MO. This duplicate facility in the wrong location has been removed from EIS.
 - Harper Industries (Facility ID 15591011). Emissions of hexavalent chromium and nickel decreased by 95% in 2021 due to improved emission calculation method.
- Minnesota:
 - 3M Cottage Grove (Facility ID 6772811). MPCA discovered this facility did not report 2020 emissions of Ethylene Oxide. MPCA sent to EPA the facility's estimated year 2020 emissions of ethylene oxide (0.00004125 tons) after 2020 AirToxScreen modeling was complete. This very small annual quantity of emissions is not expected to result in elevated risks to neighboring communities.

- New Mexico:
 - Harvest - Hare Compressor Station (Facility ID 6735111). The New Mexico Environmental Department (NMED) indicated benzene emissions were overestimated due to a calculation error.
- Oregon:
 - Marquis Corp. dba Marquis Spas (Facility ID 8056411). The 2020NEI included 1296 pounds of cobalt emissions. After the 2020NEI was finalized and modeled for AirToxScreen, Oregon DEQ reported that cobalt emissions were overestimated and did not account for emissions control efficiency (including transfer and retention efficiency). The recalculated estimate of year 2020 cobalt emissions is 26 pounds.
- Texas:
 - EAGLE RAILCAR CHANNELVIEW FACILITY (Facility ID 4058411). The Texas Commission on Environmental Quality (TCEQ) reported the facility emitted no ethylene oxide (0 tons per year) in 2019, 2021, and 2022.