



THE THREAT OF OIL & GAS POLLUTION

Mississippi

Methane, the primary component of gas, is an invisible, odorless greenhouse gas that is a powerful driver of climate change – 87 times as powerful as carbon dioxide during the time it remains in the atmosphere.¹ The oil and gas sector is the largest source of methane in the U.S., leaking or intentionally venting large quantities of this dangerous pollutant into our air every day. In 2014, the oil and gas industry emitted over 9.8 million metric tons of methane, a number 34% higher than previous estimates.² The near-term climate impact of these emissions is equal to the pollution caused by more than 200 coal-fired power plants over 20 years.

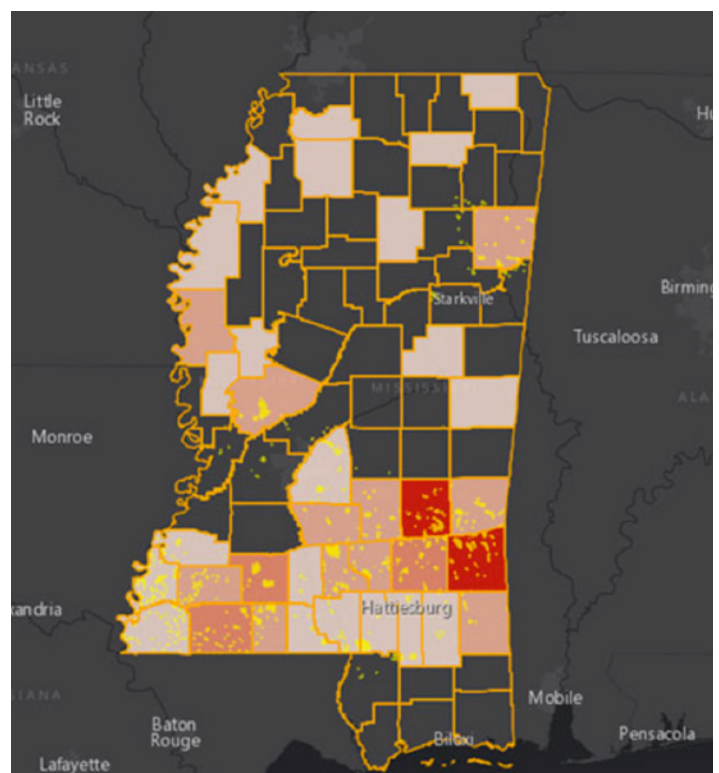
Along with methane, oil and gas facilities often release other air pollutants that can harm our health, including formaldehyde, benzene, acetaldehyde, and ethyl benzene. These toxins can cause cancer, respiratory symptoms, anemia, brain damage and birth defects, eye irritation, and blood and neurological disorders.

THE THREAT RADIUS

Peer-reviewed studies have documented higher levels of harmful air pollutants in and around areas with oil and gas production activity, and have shown that oil and gas facilities are the source of the excess pollution. Research indicates links between risks and/or prevalence of disease and proximity to facilities.³ The half mile “threat radius” is a very conservative estimate of the area within which higher levels of toxic pollution are seen, and the distance within which health impacts have most clearly been correlated with the presence of oil and gas facilities.⁴

There are currently 12.4 million people living within a half mile of one of 1,193,118 active oil and gas wells, compressors, and processors in the United States. In total, 184,578 square miles are covered by the threat radius⁵, which includes 11,543 schools and 639 medical facilities. Nationwide, 238 counties in 21 states face a

cancer risk that exceeds EPA’s one-in-a-million threshold level of concern, **including Jasper and Wayne County in Mississippi.**⁶



MAP: OILANDGASTHREATMAP.COM/THREAT-MAP/MISSISSIPPI/

OIL & GAS THREATENS MISSISSIPPIANS

More than 37 thousand of Mississippi's residents live within a half mile threat radius of one of the state's 4,560 methane-emitting facilities. Over 70 schools and two medical facilities fall into the 973 square miles covered by the threat radius. In addition to Jasper and Wayne counties exceeding EPA's cancer risk level of concern, Amite, Jones and Lincoln counties have a cancer risk in the highest 10%.

THE NUMBERS⁷

TOTAL POPULATION Living in the Threat Radius (within a half mile of a facility)	37,057
TOTAL NUMBER of Active Oil and Gas Wells, Compressors, and Processors	4,560
NUMBER OF COUNTIES that Exceed EPA's Cancer Risk Level of Concern	2
NUMBER OF SCHOOLS in the Threat Radius	71
NUMBER OF MEDICAL FACILITIES in the Threat Radius	2
SQUARE MILES COVERED by the Threat Radius	973

STRONG FEDERAL STANDARDS ARE KEY

On May 12, 2016, the Environmental Protection Agency (EPA) finalized the first-ever federal standards addressing new and modified sources of methane pollution from the oil and gas sector. These standards require, among other things, that companies regularly monitor for and

repair leaks.⁸ The EPA expects this rule to cut 510,000 tons of methane pollution from oil and gas facilities and equipment, the emissions equivalent of 11 coal-fired power plants or taking 8.5 million cars off the road every year.⁹ These standards will also significantly impact public health by curbing emissions of smog-forming volatile organic compounds (VOCs) and toxic air pollutants.

The 2016 standards were an important first step, but in 2018, nearly 90% of methane emissions will come from existing sources not covered by this rule.¹⁰ Strong methane standards for both new *and existing* sources are key to the Administration's ability to meet its Paris climate commitments to reduce greenhouse gas emissions 26-28% below 2005 levels by 2025.¹¹ Therefore, the EPA must develop strong and effective standards for existing sources as soon as possible, both to meet its legal commitments and to protect public health and welfare. **Without strong standards on existing sources, millions of people — including the more than 37,000 in Mississippi within the threat radius — will continue to be at risk.**

COMMON-SENSE SOLUTIONS ARE READILY AVAILABLE

Thankfully, common-sense solutions exist not only to clean-up and fix methane leaks, but to boost local economies as well. More than 500 locations in 46 states are already manufacturing the equipment and providing the services needed to reduce methane pollution, **including 3 locations in Mississippi.** These businesses are helping to grow the local economy by creating highly skilled, good-paying jobs.¹²

ENDNOTES

- [1 http://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter08_FINAL.pdf](http://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter08_FINAL.pdf)
- [2 https://www3.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2016-Main-Text.pdf](https://www3.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2016-Main-Text.pdf)
- [3 http://ehp.niehs.nih.gov/1306722/](http://ehp.niehs.nih.gov/1306722/)
- [4 http://oilandgasthreatmap.com/about/threat/](http://oilandgasthreatmap.com/about/threat/)
- [5 http://oilandgasthreatmap.com/threat-map/](http://oilandgasthreatmap.com/threat-map/)
- [6 http://www.catf.us/resources/publications/files/FossilFumes.pdf](http://www.catf.us/resources/publications/files/FossilFumes.pdf)
- [7 http://oilandgasthreatmap.com/threat-map/mississippi/](http://oilandgasthreatmap.com/threat-map/mississippi/)

- [8 https://www.epa.gov/newsreleases/epa-releases-first-ever-standards-cut-methane-emissions-oil-and-gas-sector](https://www.epa.gov/newsreleases/epa-releases-first-ever-standards-cut-methane-emissions-oil-and-gas-sector)
- [9 https://www.epa.gov/newsreleases/epa-releases-first-ever-standards-cut-methane-emissions-oil-and-gas-sector](https://www.epa.gov/newsreleases/epa-releases-first-ever-standards-cut-methane-emissions-oil-and-gas-sector)
- [10 https://www.edf.org/sites/default/files/methane_cost_curve_report.pdf](https://www.edf.org/sites/default/files/methane_cost_curve_report.pdf)
- [11 https://www.whitehouse.gov/the-press-office/2015/03/31/fact-sheet-us-reports-its-2025-emissions-target-unfccc](https://www.whitehouse.gov/the-press-office/2015/03/31/fact-sheet-us-reports-its-2025-emissions-target-unfccc)
- [12 https://www.edf.org/sites/default/files/us_methane_mitigation_industry_report.pdf](https://www.edf.org/sites/default/files/us_methane_mitigation_industry_report.pdf)

APPENDIX

MS Counties	Total Population	Threatened Population	Number of Facilities	Threatened Schools	Threatened Medical Facilities	Threatened Square Miles	Other Risks
Jones County	19,446	8,017	261	12	1	55.25	County Cancer Risk is in highest 10%.
Adams County	17,538	3,564	273	5	1	85.59	
Pike County	20,987	3,207	131	3	0	37.94	
Lincoln County	10,596	2,456	211	2	0	37.28	County Cancer Risk is in highest 10%.
Jasper County	9,040	2,302	579	3	0	59.15	Exceeds EPA level of concern for cancer risk*.
Monroe County	11,587	2,199	173	5	0	37.98	
Wayne County	8,165	1,628	357	5	0	73.50	Exceeds EPA level of concern for cancer risk*.
Covington County	6,907	1,302	75	9	0	32.29	
Jefferson Davis County	7,532	1,264	520	7	0	58.02	
Rankin County	27,315	1,088	63	1	0	33.34	
Clarke County	5,819	960	133	5	0	40.58	
Forrest County	27,665	939	102	0	0	19.09	
Hinds County	170,929	730	23	1	0	8.02	
Lowndes County	26,327	722	32	1	0	9.38	
Amite County	5,471	667	91	0	0	44.03	County Cancer Risk is in highest 10%.
Smith County	3,823	565	104	1	0	30.81	
Simpson County	9,785	542	45	1	0	14.53	
Yazoo County	16,156	473	292	0	0	35.08	
Marion County	8,879	442	156	2	0	27.13	
Lamar County	11,169	433	460	0	0	25.36	
Lee County	23,239	415	19	1	0	8.12	
Walthall County	6,963	372	19	0	0	11.68	
Madison County	36,718	359	16	1	0	7.31	
Franklin County	2,818	313	122	0	0	42.56	
Lawrence County	4,012	266	8	0	0	4.93	
Wilkinson County	7,011	249	104	1	0	52.47	
Chickasaw County	7,405	227	20	2	0	10.47	
Oktibbeha County	17,724	217	11	1	0	7.79	
Pearl River County	7,231	208	25	0	0	11.53	
Greene County	3,816	205	37	0	0	11.10	
Perry County	2,520	182	21	0	0	8.91	
Warren County	23,161	160	5	2	0	2.64	
Jefferson County	6,641	151	41	0	0	14.44	
Clay County	12,099	70	16	0	0	7.39	
Itawamba County	1,448	57	0	0	0	0.50	
Pontotoc County	4,318	57	5	0	0	2.61	
Scott County	10,812	48	2	0	0	1.57	
Claiborne County	8,143	1	1	0	0	0.47	
Harrison County	43,621	0	4	0	0	1.32	
Leflore County	23,495	0	3	0	0	1.13	

*County-wide average cancer risk is equal to or greater than 1 in 1 million.