



# Texas Weakens Chemical Exposure Guidelines, Opens Doors for Polluters

By Lisa Song, InsideClimate News, and Rosalind Adams, The Center for Public Integrity  
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AUSTIN—In 2007, Texas regulators quietly relaxed the state’s long-term air pollution guideline for benzene, one of the world’s most toxic and thoroughly studied chemicals. The number they came up with, still in effect, was 40 percent weaker, or less health-protective, than the old one.

The decision by the Texas Commission on Environmental Quality (TCEQ) was a boon for oil refineries, petrochemical plants and other benzene-emitting facilities, because it allowed them to release more benzene into the air without triggering regulatory scrutiny. But it defied the trend of scientific research, which shows that even small amounts of benzene can cause leukemia. The American Petroleum Institute, lobbyist for some of the nation’s largest benzene producers, privately acknowledged as early as 1948 that the only “absolutely safe” dose was zero.

It’s “the most irresponsible action I’ve heard of in my life,” said Jim Tarr, an air-quality consultant who worked for the TCEQ’s predecessor agency in the 1970s. “I certainly can’t find another regulatory agency in the U.S. that’s done that.”

The benzene decision was part of Texas’ sweeping overhaul of its air pollution guidelines. An analysis by InsideClimate News shows that the TCEQ has loosened two-thirds of the protections for the 45 chemicals it has re-assessed since 2007, even though the state’s guidelines at the time were already among the nation’s weakest.

The changes are being supervised by TCEQ toxicologist Michael Honeycutt, who began updating the way Texas develops its guidelines in 2003, when he was promoted to division chief. A genial, bespectacled man who takes great pride in his work, Honeycutt is a trusted advisor to top TCEQ officials and often acts as the agency's scientific spokesman. He is also a frequent critic of federal efforts to reduce air pollution.



*Michael Honeycutt heads the TCEQ toxicology department. Under his supervision, the agency has loosened two-thirds of the protections for the 45 chemicals it has re-assessed since 2007. (Credit: LinkedIn)*

Honeycutt's actions reflect Texas's pro-industry approach to air quality, which [InsideClimate News and the Center for Public Integrity have been examining for the past year and a half](#). Most of the air-quality guidelines the state's oil and gas producers are supposed to meet are not legally enforceable regulations. That means violators are rarely punished, and residents who complain about foul air near drilling sites have few places to turn for help.

Texas has made its anti-regulatory stance known on the national front. Attorney General Greg Abbott, the state's governor-elect, has taken legal action against the U.S. Environmental Protection Agency 19 times since 2010, arguing that overly restrictive regulations stifle business growth, cost jobs and threaten the state's economy. The EPA is "a runaway federal agency that must be reined in," [Abbott said](#) last year when he challenged greenhouse gas regulations.

Honeycutt has publicly criticized the EPA for being overzealous in its regulation of ozone, which exacerbates asthma; particulate matter, a known respiratory hazard; and hexavalent chromium, the cancer-causing chemical that launched the Erin Brockovich case. In testimony before a congressional committee in 2011, he [said](#) the EPA had been overly cautious in evaluating the toxicity of mercury, a powerful neurotoxin known to lower IQ. Mercury is particularly harmful to developing fetuses.

"EPA ignores the fact that Japanese eat 10 times more fish than Americans do and have higher levels of mercury in their blood, but have lower rates of coronary heart disease and high scores on their IQ tests," [Honeycutt said in a letter](#) responding to written questions from one of the committee members after the hearing.

[State Rep. Lon Burnam](#), a Fort Worth Democrat who has tried for years to strengthen Texas public health regulations, said Honeycutt's role as chief toxicologist is more political than scientific.

"I consider him an apologist for the polluters," Burnam said. "I think he doesn't give a tinker's dam about public health."

Honeycutt said the toxicologists on his staff are good scientists who take their jobs seriously.

"Our friends and family live in this state, too," Honeycutt said. "My son wants to go to school in Houston, and I want him to be just as protected as every other kid in Houston."

Scientists interviewed for this story agree that Texas needed to update the process it uses to set air quality guidelines. When Honeycutt took over, he introduced formalized methods of risk assessment, an interdisciplinary field of science that includes toxicology, epidemiology and biostatistics. Risk assessment has become the most widely used method of determining the health risks chemicals pose to the public.



*Michael Honeycutt and fellow toxicologist Roberta Grant at the Texas Center for Environmental Quality office in Austin. (Credit: Lisa Song)*

But scientists say the process has inherent uncertainties that open the door to bias.

“This is done across the spectrum, not only from those more inclined to have higher permissible standards, but also by those that would like to have lower ones,” said Maria Morandi, a private consultant who formerly worked as a health scientist at the University of Texas School of Public Health in Houston.

The problem, Morandi said, is that finding the scientifically “correct” exposure level for each of the thousands of chemicals industries release into the air is impossible because it would require exorbitantly expensive experiments, or illegal and unethical testing on humans. The best scientists can do, she said, is extrapolate data from existing studies and hope the numbers they produce are low enough to protect a majority of the population.

The potential for bias comes in when the risk assessment team chooses which studies to include or exclude, and how to weigh the available evidence. Some scientists lean toward the side of public health and believe many existing standards aren’t strong enough. Others tend to be more lenient, taking the view that overly protective standards place needless and expensive burdens on industry.

It’s “about what questions you ask, what uncertainties you leave alone and which ones you decide to focus on,” said [Ruthann Rudel](#), director of research at the Silent Spring Institute, a research center in Massachusetts. Bias in risk assessment is rarely a product of fraudulent science, she said, but rather a reflection of how scientists choose to frame their analysis.

The InsideClimate News analysis shows that in Texas, the bias tilts toward industry.

As of September, nearly 60 percent of the new guidelines Honeycutt’s team derived for outdoor air quality are less protective than analogous numbers used by the EPA and by California, whose guidelines are among the strictest in the nation.

A year after its benzene announcement, the TCEQ released a new cancer risk assessment guideline for another high-profile chemical: 1,3-butadiene, which is produced by the

synthetic rubber industry and can cause leukemia. Texas is responsible for the majority of the nation's butadiene emissions.

Ron Melnick, a former scientist at the National Institute of Environmental Health Sciences, analyzed the TCEQ's [139-page description](#) of its butadiene decision-making process for InsideClimate News. When Melnick compared the Texas approach with the EPA's, he said Texas "dismissed anything which might have made the risk seem higher than what they wanted."

The TCEQ's new butadiene number is 60 times less protective than the EPA's and 340 times less protective than California's.

Such glaring discrepancies are possible—and perfectly legal—because the federal government rarely sets legally enforceable air quality standards for the chemicals it has assessed. That leaves each state to come up with its own approach for each chemical, which means people in different states are protected to different levels. A chemical release that could trigger a public-health alert in California, for instance, might not even be noticed by Texas regulators.

"It's confusing, because you cross the state boundary and the toxicity of the chemical changes," said [Loren Raun](#), a health scientist who works for the city of Houston and teaches at Rice University. "That, right there, is a problem."

Few Texans are aware that Honeycutt's department is changing the state's air-quality guidelines. Because they are not legally enforceable standards, the toxicology department can update them without public hearings or approval from top officials, according to former TCEQ Commissioner Larry Soward.

When the TCEQ released its benzene proposal in 2007, the only person who submitted a public comment was a representative of a chemical trade group, who urged the TCEQ to further weaken the guideline. The agency refused.

Soward, who was one of the TCEQ's top three officials when the benzene guideline was changed, said he didn't learn of the revision until InsideClimate News asked him about it in July. Soward [left the agency in 2009](#) and spent several years working for Air Alliance Houston, an environmental group.

When Soward was appointed a TCEQ commissioner in 2003, he said, he often met with Honeycutt to discuss public health issues and thought the toxicologist "was a very scientific-based, impartial person." By 2005, however, Soward felt Honeycutt was advocating for "positions he felt like he was supposed to advocate" for, regardless of the science.

"I think he really believes...that air pollutants don't really have a health effect unless there's such a toxic exposure to them that it leads to direct problems," Soward said. "I used to joke I didn't think there was a toxic pollutant he didn't like."

Burnam, the state representative, blames the TCEQ's governor-appointed commissioners for the agency's pro-industry bent.

“For the past 20 years, you’ve either had oil industry [George W.] Bush or oil industry apologist [Rick] Perry making all the appointments,” said Burnam, who was defeated in the March Democratic primary and leaves office this month. “...The good [employees] at the lower levels are totally frustrated and hamstrung.”

### **‘I Love This Job’**

Honeycutt’s [15-member division](#) is one of the largest state toxicology departments in the country. In addition to setting air-quality guidelines, it reviews air and water monitoring data, advises emergency crews after chemical accidents and provides scientific expertise to agency officials.

“We have probably one of the best toxicology departments in the world,” Commissioner [Toby Baker](#) said at a TCEQ hearing last year.

The division’s size remained relatively steady even when the TCEQ’s operating budget dropped 39 percent from 2008 to 2013. Its stature rose in 2012, when an agency-wide reorganization put Honeycutt’s department directly under the office of the TCEQ’s executive director. The toxicology division now occupies a suite of offices and cubicles in a gleaming blue building in Austin, on the same floor as the executive director and the TCEQ’s three commissioners.

“I love this job,” Honeycutt said in November, during an interview in his spacious office. “This is the job I went to school to learn how to do. I get to sit on the side of the table opposite everybody. One thing we’ve learned is, usually when everybody’s mad at you, you’re probably doing your job right.”

Honeycutt, 48, studied toxicology at the University of Northeast Louisiana at Monroe, 30 miles from his hometown. His high school yearbook reveals he graduated with honors and was a leader, or “beau,” of the library club.

He stayed at Monroe to get his Ph.D. in toxicology. David Roane, who now chairs the pharmacology department at East Tennessee State University, advised Honeycutt on his dissertation about how earthworms dispose of the element cadmium.

“I trusted his work more than most people and found him to be conscientious in a small town kind of way,” Roane said. “He was a real wholesome guy.”

Carey Pope was teaching in the toxicology department when Honeycutt was a graduate student. The two men still occasionally run into each other. Pope describes Honeycutt as “the kind of guy who was always the first in line to help you.”

After graduation, Honeycutt worked three years as a researcher for the Army Corps of Engineers, where he focused on screening for contaminants in sediments and soils. He joined the TCEQ in 1996, when the agency was still known by its former name: the Texas Natural Resource Conservation Commission, or TNRCC. Critics called it “train wreck.”

By the time Honeycutt was promoted to toxicology division chief, TNRCC had become TCEQ and the agency was under fire for the way it managed air quality guidelines. The problem was the haphazard way it set Effects Screening Levels, or ESLs, for thousands of chemicals.

ESLs are critical because the TCEQ uses them to draft the air permits it issues to oil and gas production sites, refineries, power plants and other industries. Companies must show that chemical concentrations at the boundaries of their facilities will meet the ESLs. If they don't, the TCEQ can require them to adjust their operations.

Most chemicals have a short-term ESL (for hour-long exposures) and long-term ESL (for annual average concentrations). For example, the short-term ESL for benzene in 2003 was 25 parts per billion (ppb) of benzene in air. The long-term benzene ESL was 1.0 ppb.

When the [Houston Chronicle](#) reported in 2005 that the TCEQ's ESLs were among the least protective in the country, Honeycutt told the newspaper his department was addressing the problem by changing the way ESLs are established.

The TCEQ hired a nonprofit consulting firm—[Toxicology Excellence for Risk Assessment](#) (TERA)—to convene a panel of outside scientists to review the new procedure. TERA was founded by Michael Dourson, a former EPA toxicologist and one of Honeycutt's close friends. TERA often works for industry and runs a database that has raised the profile of industry-funded risk-assessment values.

Morandi, the consultant, sat on the TERA review panel and said she was comfortable with the TCEQ document.

But she said what also matters is how the protocol is applied to individual chemicals.

The TCEQ documents its risk assessments in long, complex reports that are posted online for public comment. Honeycutt said he has tried to encourage more feedback by extending the comment period from 60 to 90 days. But few people outside industry have the time and expertise to understand or critique the highly technical documents.

The Texas environmental community tends to rely on a single expert—[Elena Craft](#) of the Environmental Defense Fund—to weigh in on risk assessment science. Air Alliance Houston Executive Director [Adrian Shelley](#) said he often turns to Craft for help on these issues.

Of the 56 comments that have been filed for the 45 chemicals the TCEQ has assessed, only one came from the environmental community. About 80 percent of the comments came from industry groups, including the American Chemistry Council and ExxonMobil.

[Adam Finkel](#), executive director of the University of Pennsylvania's Penn Program on Regulation and a former director of health standards programs for the Occupational Safety and Health Administration, said environmental groups could help level the playing field by hiring more scientists who understand risk assessment.

Some environmental organizations have multi-million dollar budgets, he said, but they're focused on other issues.

### **'This Is Crazy'**

While the TCEQ was developing its risk-assessment strategy, air pollution was making waves in the Texas press. In January 2005, a TCEQ report linked 1,3-butadiene and

benzene to elevated cancer risks in Harris County. The county is home to Houston and many refineries and petrochemical plants that emit both chemicals.

The butadiene levels corresponded to two additional cancer cases per 10,000 people—20 times what the TCEQ considered acceptable at the time. Benzene levels were seven times higher than the TCEQ’s benchmark cancer risk.

That same month, the *Houston Chronicle* published “In Harm’s Way,” a series by reporter Dina Cappiello. The newspaper had placed air monitors at 100 locations near large industrial sources and [found 84 readings](#) “high enough that they would trigger a full-scale federal investigation if these communities were hazardous waste sites.”

Only a few measurements exceeded the TCEQ’s cancer exposure guidelines, which the paper reported were “among the most lenient in the country.” The *Chronicle* noted that the results “would be considered a serious health risk in other states.”

The two reports hit a nerve with Bill White, a year into his first term as Houston’s mayor. A deputy secretary of energy during the Clinton administration, White made air quality a priority during his three terms as mayor. But he found himself fighting the TCEQ as well as the industries that were polluting his city.

A [policy analysis article](#) by Texas academics summed up the situation:

“The problem in Houston has been compounded by the reluctance of state and regional regulators to assume a strong role in pollution control and environmental enforcement, particularly concerning the chemical and refining industry, which is a key source of jobs and philanthropy in the region.”

The TCEQ increased air monitoring in Harris County, but Houston wanted more concrete action. Honeycutt met frequently with Elena Marks, White’s director of health and environmental policy from 2004 to 2009.

Marks is now [a fellow at Rice University](#), researching health care policy. She said she often came away from those meetings frustrated, because Honeycutt “always seemed to err on the side against human health.”

When city and county officials hosted a town hall meeting to discuss the alarming reports, [the TCEQ didn’t show up](#), despite its pledge to send at least two representatives. Honeycutt later criticized the TCEQ’s own report, [saying it was “overpredictive”](#) about the cancer risks.

When Houston threatened to sue Texas Petrochemicals, the main culprit behind the elevated butadiene levels, Marks said the TCEQ got “pissed off” and worked out a pollution-reduction plan with the company. But the agreement was voluntary, and Houston continued to threaten legal action. Texas Petrochemicals finally reached a legally binding agreement with the city to reduce its emissions, and butadiene levels began to drop.

To tackle the benzene problem, White tried to persuade local businesses and the TCEQ to work together on a regional benzene reduction plan, but he said the TCEQ wasn’t interested.

Benzene levels in Houston did begin to fall. But White, now senior advisor and chairman of the financial firm Lazard Houston, attributes the change to the city's aggressive leadership, which "created a tremendous incentive for compliance and put pressure on the TCEQ."

Marks put it more bluntly. "Every time we found benzene emissions...we were just a pain in the ass—and the plants thought it was just easier to curb benzene."



*Fracking activity takes place near a rural home in South Texas. (Credit: Lance Rosenfield)*

When asked to comment on the TCEQ's role in Houston during those years, agency spokesman Terry Clawson said in an email: "The TCEQ works in partnership with local governmental [entities] to address environmental issues within their communities."

In 2007, as Houston was still struggling to remove benzene from its air, Honeycutt's department weakened the long-term benzene guideline 40 percent, from 1.0 ppb to 1.4 ppb.

The new number was 13 times weaker than California's guideline. It was at the least-protective end of the range recommended by the EPA, which last updated its benzene numbers in 1998.

Marks remembers her shock when she learned of the change.

"My reaction was "This is crazy. Why would you do that?" she said. "The more you learn, the more likely you'd be to tighten any standards or screening levels."

An examination of the TCEQ's decision on butadiene shows how its conclusions could differ so sharply from the EPA's.

The EPA's analysis, done in 2002, relied primarily on an industry-funded University of Alabama-Birmingham study from the 1990s that tracked leukemia rates in workers.

The TCEQ's analysis used a 2004 study by the same researchers, also funded by the industry. They said their original study had vastly underestimated the amount of butadiene the workers were exposed to, which meant it had overestimated the risk.

Melnick, the former NIEHS scientist who analyzed the TCEQ's butadiene document, said it's hard to tell which of the two University of Alabama studies is more accurate—but the discrepancies show the "murky" history of the reports.

Because the TCEQ used the second study as its starting point, it began its analysis with numbers that showed butadiene was less toxic, Melnick said. It then made a series of



subsequent decisions that made the number even less conservative, including using a different statistical model and not adopting some uncertainty factors used by the EPA.

Melnick said it's impossible to say the Texas number is wrong. But it's clear that "Texas tried to load it up to allow the highest exposure possible."

### **'The Things They Didn't Like'**

Texas has invested time and money to oppose two federal efforts that could lead to tighter chemical regulations.

Its first effort was to address a [2009 National Academy of Sciences risk assessment report](#) authored by Finkel, the Penn professor, and 14 other scientists from academia, government and consulting firms. Among other things, the report recommended that scientists reconsider the long-held assumption that any chemical not known to cause cancer has a safety threshold—a level below which it is completely safe. If adopted by risk assessors, the recommendation could lead to additional regulations.

The following year, the TCEQ helped lead a [series of workshops](#) to discuss the National Academies' report. They were sponsored by the Alliance for Risk Assessment, a spinoff of TERA—the consulting firm founded by Honeycutt's friend Michael Dourson. Both Dourson and Honeycutt sit on the alliance steering committee. Dourson said the TCEQ came up with the idea for the workshops.

The TCEQ has awarded TERA at least \$700,000 in contracts since 2010, with \$7,000 going to the alliance to help fund the workshops. Honeycutt said that to avoid conflicts of interest he recuses himself whenever the TCEQ proposes a project to the alliance.

Honeycutt chaired the first workshop, which was held at TCEQ headquarters. Commission Chairman [Bryan Shaw](#) gave the opening speech. The agency has hosted three of the eight workshops that have taken place so far. More than 50 groups from industry, government, consulting and research centers support the workshops, [according to the alliance website](#).

Honeycutt and Dourson say the workshops are designed to expand upon the National Academies' report and foster collaborations to develop practical risk assessment methods. But Finkel and two other health scientists who work in risk assessment say the main focus was to criticize the report, especially the part about the non-carcinogen thresholds.

"They were essentially formed to respond to that report and the things they didn't like," said [Tracey Woodruff](#), a professor at the University of California, San Francisco, who studies reproductive health and the environment.

Finkel said the workshops were so biased toward industry's point of view that he stopped attending them.

### **'He Is Our Expert'**

The TCEQ has also consistently opposed the EPA's handling of ozone, one of six compounds with federal air standards. Ozone is created primarily by fossil fuel emissions and is known to exacerbate respiratory and cardiovascular disease. Exhaustive reviews by EPA scientists

and independent agency advisors have urged that the federal standard of 75 parts per billion be lowered.

In November, the [EPA proposed a new standard](#) of 65-70 ppb, which the agency predicted would prevent thousands of premature deaths and asthma-related emergency room visits each year.

Just minutes after the EPA's announcement, the [TCEQ issued a press release](#) in which chairman Shaw described the decision as "shortsighted."

A lowered standard would create serious problems for Texas' three largest cities—Houston, San Antonio and Dallas—which are out of compliance with the current standard.

Honeycutt has criticized the EPA's ozone science at public hearings, in comments submitted to EPA's ozone panel, in presentations at scientific conferences and his own scientific analyses posted on the TCEQ's website.

In the [TCEQ's October newsletter](#), he said his agency's "in-depth review" of the EPA's scientific analysis found that "further lowering of the ozone standard will fail to provide any measurable increase in human health protection."

"The fervor with which they've been critical of the ozone standard...is unprecedented," said Craft, the Environmental Defense Fund scientist. "I can't think of another state where they've spent the amount of time and resources on this issue as Texas."

Last year, the TCEQ paid a Massachusetts-based consulting firm, [Gradient](#), \$1.65 million to examine the science behind EPA's air quality standards, which include ozone. Clawson, the TCEQ spokesman, [recently told the Texas Tribune](#) that the agency is developing a separate Gradient contract to "provide a comprehensive review" of the science "addressing potential impact of ozone on asthma."

One of Honeycutt's main objections to EPA science is that it's based on an eight-hour ozone exposure. He thinks the standard should be weakened because people are rarely outside for that long.

The problem with that reasoning, Craft said, is that some people, including construction workers, do spend most of their day outside. "And what if someone wanted to stay outside all day? I think most people want the option of being able to go outside and feeling like you're breathing air that is healthy."

Another of Honeycutt's arguments relies on a 2009 study that projects a few dozen more deaths in Houston if the ozone standard is tightened. Those results were based on the assumption that Houston would use a particular cleanup strategy that targets only one class of ozone-forming chemicals, Craft said. The TCEQ can avoid the problem by choosing a different plan, she said.

[Robert Haley](#), an epidemiologist at the University of Texas Southwestern Medical Center, grappled with the TCEQ's position on ozone last year when he was lobbying for the shutdown of three coal-fired power plants that contribute to the ozone problem in Dallas. Haley is a member of the Dallas County Medical Society, which has petitioned for the closures.

Haley spoke with each of the TCEQ commissioners in back-to-back meetings and said Honeycutt sat in on all of them. The commissioners “all deferred to him, [saying] ‘He is our expert.’ ...

“They consult him on everything.”

Not long after those meetings, the TCEQ denied the petition.

“It does no one any good to go and require reducing ozone if we’re not having a beneficial impact,” Shaw said during the petition hearing. “And there’s data...that suggests that [reducing] ozone may not be giving us that benefit.”

### **‘Does Not Necessarily Indicate a Problem’**

The TCEQ’s critics say the agency’s industry-friendly ESLs are just part of the air-quality problem in Texas. The bigger problem, they say, is that violations of the ESLs don’t necessarily trigger regulatory action.

The Texas guidelines are “just a number that they picked, and they said that when the air pollution monitors hit that number, then they would investigate further,” said Marks, the former Houston environmental director. “There was no actual consequence to finding the air quality was above that particular number.”

It’s hard to tell when or how the TCEQ enforces the ESLs.

The [agency’s toxicology website](#) says if airborne concentrations “exceed the screening levels [ESLs], it does not necessarily indicate a problem but rather triggers a review in more depth.”

The website also says ESLs are only used to screen companies that apply for air permits, and should not be used to gauge outdoor air quality. The TCEQ has a separate set of health-based guidelines to evaluate air-monitoring data, and those numbers can be up to three times less protective than the ESLs.

But even when these more lenient numbers are exceeded, the TCEQ doesn’t necessarily see a health risk.

When InsideClimate News asked the TCEQ what happens when air-monitoring data exceed guidelines, spokeswoman Andrea Morrow said the data are examined on a case-by-case basis. For example, she said, if an air monitor showed 5,000 ppb of a chemical whose TCEQ’s guideline was 1,000 ppb, the toxicology department would say “there is a potential for adverse health effects.”

In other words, even a number that’s five times the TCEQ guideline doesn’t automatically trigger enforcement action.

InsideClimate News then asked if the agency had ever penalized or shut down a facility for violating ESLs or air monitoring guidelines. Clawson, the spokesman, said the TCEQ “does not collect and track information on enforcement actions” in a way that would enable him to answer that question. To get that information, he said, it would be necessary to examine individual investigation reports.

When Honeycutt was asked if he thought the ESLs should be turned into legally enforceable standards, he said that decision rests with the state legislature. A 2007 House bill that aimed to do that never made it out of committee.

Honeycutt defended the way his agency reacts when guidelines are exceeded. He said the TCEQ handles the problem by putting neighborhoods or regions with elevated chemical levels on an [Air Pollutant Watch List](#). The agency then dedicates more resources to improving air quality in those areas, perhaps by investigating local industries or doing additional air monitoring.

“We don’t just note [the problem] and go on with our lives,” Honeycutt said. “We do do something about it.”

But being added to the list doesn’t guarantee a speedy solution.

In 1998, a neighborhood in Corpus Christi was placed on the list because annual benzene concentrations exceeded the TCEQ’s 1.0 ppb guideline. The neighborhood was removed from the list 12 years later, in 2010—not because the annual benzene average had dropped below that level, but because the agency had weakened the guideline to 1.4 ppb.

The agency’s website [cited the new guideline](#) as the reason for the delisting.

*This story is part of an ongoing project by InsideClimate News and The Center for Public Integrity. Lisa Song is with InsideClimate News. Rosalind Adams is with CPI. InsideClimate News reporter David Hasemyer contributed to this report.*