EIP: U.S. REFINERIES' CARCINOGENIC POLLUTION ROSE FROM 2004-2006, UNDERREPEPORTING OF MILLIONS OF POUNDS OF EMISSIONS SUSPECTED

Refineries in Illinois, Kansas, Louisiana, New Mexico, Texas, and Wyoming Ranked As Worst Polluters; Nine of Top 10 Worst Refineries are in Texas and Louisiana.

WASHINGTON, D.C. – October 1, 2008 – In a disturbing reversal of a positive trend in earlier years, emissions of carcinogens from U.S. refineries actually went up between 2004 and 2006, according to a new study by the nonprofit and nonpartisan Environmental Integrity Project (EIP). Based on an analysis of Toxics Release Inventory (TRI) emissions data reported by refineries to the U.S. Environmental Protection Agency (EPA), the EIP study found that a handful of U.S. refineries accounted for more than a third of the total emissions of carcinogens.

EIP concluded Total OSHA carcinogens emitted by U.S. petroleum refineries climbed from 3,090,521 pounds in 2004 to 3,164,460 in 2006, an increase of about 74,000 pounds, or more than 2 percent. Nine of the top 10 refinery sources are either in Texas or Louisiana. (See list below.)

The Environmental Integrity Project report also cautions that millions of pounds of carcinogenic formaldehyde and benzene emissions by refineries are likely underreported by the industry. For example, only six of the nation's 150 refineries reported releasing a total of 142,995 pounds of formaldehyde in 2005. But according to EPA methods of estimating emissions, industry-wide emissions could exceed 4 million pounds a year. In addition, new "remote sensing" technologies that directly measure air emissions show that refinery releases of carcinogens can be as much as *100 times* higher than industry estimates based on outdated EPA emission factors. The city of Houston filed a petition on July 10, 2008, asking EPA to replace outdated and inaccurate emission factors that are used to estimate refinery emissions with newer and more accurate methods of measurement.

Eric Schaeffer, director, Environmental Integrity Project, said: **"Petroleum refineries are a major source of air pollution, and it's disturbing to see so little progress made in reducing emissions of carcinogens. Also, the evidence continues to mount that this toxic pollution is grossly underestimated, or not reported at all. In this case, what you don't know can hurt you, since most refineries are within breathing distance of where people live, work, and go to school."**

"This report and the work EIP is doing is invaluable to refinery communities" said Kathy Andria, president of American Bottom Conservancy, which is based in downstate Illinois where the ConocoPhillips Wood River refinery is located. **"We have very high rates of cancer and heart and lung disease here, so we are alarmed that toxic emissions from refineries can be 100 times higher than what is being reported. We are fortunate, though, that with EIP's help we negotiated an agreement that will require ConocoPhillips to use the cutting-edge DIAL laser monitoring technology discussed in the report. That should result in accurate monitoring and reduced emissions that will benefit not only citizens, but the company, as well."**

"It's shocking that these numbers actually increased during this two-year period," said Matthew Tejada, director of the Galveston-Houston Association for Smog Prevention (GHASP). **"The lack of significant progress and now an actual reported increase in emissions totally negates any excuse not to do everything in our power to reduce industrial emissions. We need to use every available tool, including new measuring and monitoring technologies, to get at the real source of these emissions and get these pollutants out of the air we breathe."**

The top ten largest emitters, in terms of total emissions of carcinogens reported in 2006 are:

1. BP: Texas City, TX
2. Exxon Mobil: Baytown, TX
3. Citgo: Lake Charles, LA
4. Houston Refining Co.: Houston, TX
5. Flint Hills Res: Corpus Christi, TX
6. Motiva: Port Arthur, TX
7. Chalmette Refining: Chalmette, LA
8. Conoco Phillips: Sweeny, TX
9. Conoco Phillips: Roxana, IL
10. Valero: Corpus Christi, TX

As the EIP report notes: "These 10 refineries account for 16 percent of the total refining capacity in the U.S., but emit 36 percent of the OSHA carcinogens."

EIP's report found that the biggest polluters are not always the largest refineries. Some facilities emit much more carcinogens per barrel of oil produced than others. Interestingly, Texas refineries report more than eight times more carcinogens emitted per barrel of oil than California refineries, according to the report. The top 10 emitters -- in terms of carcinogens released per barrel of oil produced -- are:

1. Calumet Lubricants: Cotton Valley, LA
2. BP: Texas City, TX
3. Giant Refining: Gallup, NM
4. Total Petrochemicals: Port Arthur, TX
5. NCRA: McPherson, KS
6. Sinclair Oil: Sinclair, WY
7. Valero: Corpus Christi, TX
8. Alon USA: Big Spring, TX
9. Chalmette Refining: Chalmette, LA
10. Shell Oil: Yabucoa, PR

The EIP report notes: **"Three refineries that report the highest total releases of OSHA carcinogens—BP Texas City, Chalmette Refining, and Valero in Corpus Christi—are also three of the ten worst emitters of OSHA Carcinogens per barrel of oil. BP reported emitting 181,352 lbs of OSHA Carcinogens from their Texas City refinery in 2006. With a refinery capacity of 205,000 barrels of oil per calendar day, BP emits 2.40 lbs of OSHA Carcinogens per 1,000 barrels of oil. This is 4.6 times more than the national average and 240 times more than the best U.S. refineries, which emit only .005 lbs of OSHA carcinogens per 1,000 barrels of oil. Chalmette and Valero in Corpus Christi both emit about 2.7 times more OSHA Carcinogens per barrel of oil than the national average and 140 times more than the best refineries."**

The EIP report caution that the "carcinogens per barrel of oil" refinery rankings may be influenced in certain cases by carcinogenic emissions from nearby non-refinery sites, such as chemical plants.

METHODOLOGY

"OSHA carcinogens" are TRI chemicals that are likely to be classified as carcinogens on material safety data sheets (MSDS) required by the OSHA. Designations of chemicals as carcinogenic or possibly carcinogenic in humans are made by expert consensus groups established by the U.S. National Toxicology Program, or by the International Agency for Research on Cancer, an agency of the World Health Organization. The TRI "OSHA carcinogens" emitted by refineries may include benzene, ethylbenzene, butadiene, polycyclic aromatic hydrocarbons, naphthalene, formaldehyde, and metals such as nickel and lead.

The Toxics Release Inventory established under the Emergency Planning and Community Right-to-Know Act of 1986 and expanded by the Pollution Prevention Act of 1990, is an online publicly available EPA database that contains information on toxic chemical releases reported annually by certain covered industries, including petroleum refineries. Reporting is required for several dozen carcinogenic chemicals, some of which have been shown to cause cancer in people, and some of which cause cancer in animals and may be carcinogenic in people. Looking at releases of the group of chemicals that TRI refers to as "OSHA carcinogens" as a whole, a picture emerges of the extent to which certain petroleum refineries, as well as the refining industry as a whole, are releasing carcinogens.

ABOUT THE GROUPS

The Environmental Integrity Project (http://www.environmentalintegrity.org) is a nonpartisan, nonprofit organization established in March of 2002 by former EPA enforcement attorneys to advocate for effective enforcement of environmental laws. EIP has three goals: 1) to provide objective analyses of how the failure to enforce or implement environmental laws increases pollution and affects public health; 2) to hold federal and state agencies, as well as individual corporations, accountable for failing to enforce or comply with environmental laws; and 3) to help local communities obtain the protection of environmental laws.

The mission of GHASP (http://www.ghasp.org) is to persuade government and corporate officials to prevent smog. GHASP seeks to accomplish its mission by being the most credible advocate for clean air in the Houston region; by supporting efforts to educate the public and intensify the political climate; and by directly engaging government officials, community leaders, the media and industry on regional air pollution issues.

American Bottom Conservancy is a not-for-profit organization based in the Metro East St. Louis area, working to protect the resources and people of Illinois.

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