

OC release of CFCs is 4.5 million pounds a year

By Maria Cone

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Orange County leaks at least 4.5 million pounds of ozone-destroying chemicals into the atmosphere each year, new calculations show.

About 80 percent of the chlorofluorocarbons, or CFCs, in the county come from foam-product manufacturers and aerospace and electronics industries, according to data compiled by the South Coast Air Quality Management District.

The rest comes from repair and disposal of household and commercial air conditioners, refrigerators and freezers, which leak Freon, a type of CFC.

The calculations, based on 1987 emissions, represent the first time that the ozone-depleting chemicals released into the atmosphere have been estimated. The data are in a new preliminary staff document that has not been released publicly or debated by the agency's board.

Scientists say CFCs drift into the upper atmosphere and eat holes in the Earth's ozone layer, which shields the planet from harmful ultraviolet rays that can cause skin cancer and alter ecosystems and crop yields.

Orange County has only about
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EMISSIONS: Local release of CFCs tallied

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one-fourth the population of Los Angeles County, but emits about half the amount of CFCs, mostly because of its proliferation of foam-manufacturing plants and aerospace and electronic companies, the AQMD's data show. Los Angeles County releases 8.75 million pounds of CFCs per year.

Orange County emits about 12 times more than Riverside and San Bernardino counties, the report shows.

The inventory was developed by the AQMD as the starting point for a new proposed program to force industries in the four counties to dramatically reduce use of chemicals that damage the ozone layer or are linked to global warming over the next few years.

By early next week, the AQMD expects to release a policy with proposed deadlines and details for eliminating CFCs in the four-county region. The board is expected to consider the policy — which would commit to adopting some rules by the end of the year — in March.

"The goal is the elimination of CFCs and the elimination of all substances that contribute to ozone depletion and global warming in as expeditious a pace as possible," said Barry Wallerstein, the AQMD's planning director.

Wallerstein declined to reveal details but said the proposed deadline for phasing out CFCs in Southern California would be "significantly more aggressive" than 1998, which is the deadline in an international treaty for cutting them by 50 percent.

Damaging the ozone

About 4.5 million pounds of ozone-damaging chemicals were released into the atmosphere from Orange County businesses in 1987 — more than half the amount from Los Angeles County. It is the first time that officials have estimated the amounts of chemicals emitted in the area.

BY AREA

Orange County	4.5 million pounds
Los Angeles County	8.75 million pounds
Riverside County	338,000 pounds
San Bernardino County	380,000 pounds
Desert areas	156,000 pounds
Basin total	14.1 million pounds

ORANGE COUNTY SOURCES

Foam manufacturers	2.03 million pounds
Industrial solvents	1.64 million pounds
Servicing auto air conditioners	387,332 pounds
Large building air conditioners	31,392 pounds
Servicing home air conditioners	112,170 pounds
Disposal of home air conditioners	149,170 pounds
Servicing refrigerators and freezers	31,069 pounds
Disposal of refrigerators and freezers	24,724 pounds
Retail refrigeration	4,225 pounds
Aerosols	84,000 pounds

Source: South Coast Air Quality Management District

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Bill Kelly, an AQMD spokesman, said there is no data to determine if use of the chemicals has increased or decreased in Southern California since 1987.

"This is our first inventory attempt," he said.

The AQMD's calculations include only CFCs and exclude other ozone-damaging chemicals, such as methyl chloroform.

Irvine already has banned industrial uses of CFCs and methyl chloroform effective July 1 and the city has mandated that repair companies capture the leaking chemicals while servicing refrigerators and air conditioners. It is the nation's most sweeping local law to protect the ozone layer.

All over the Earth, about 1.6 billion tons of the compounds are produced and released into the atmosphere every year, according to research by F. Sherwood Rowland, a University of California, Irvine, chemist who first linked CFCs to a growing hole in the ozone layer

over Antarctica.

That makes Orange County responsible for about 0.33 percent of the global problem, based on the new data. Combined with Los Angeles County, it reaches about 1 percent.

Destruction of the ozone layer is considered a global crisis, prompting the United States and other major industrial nations to agree in 1987 to the Montreal Protocol, an international treaty to cut production of the chemicals in half by 1998.

But some scientists, AQMD officials and local government officials say forcing a region as economically influential as Southern California to stop using the chemicals sooner would have a significant effect.

"It doesn't seem like 1 percent can do much, but then again it's a cascade effect," said Donald Blake, a research chemist who works with Rowland at UCI. "If you eliminate it here, it shows others that we can get by without these CFCs. It has impact politically."

Orange County has many high-tech industries and manufacturing plants that use the chemicals.

More than 2 million pounds a year — or 45 percent of the amount used in the county — come from companies that use CFCs in the manufacture of plastic-foam products, such as insulation, packaging material and cushioning.

Also, Orange County aerospace companies, electronics companies and other plants that use them as cleaning solvents emit about 1.64

million pounds, or 35 percent the county total, the report says. The estimate includes only large companies, those that emit more than 18 tons of any air pollutant annually.

Facing local and national regulations that phase out the chemicals, Orange County companies are making changes in manufacturing practices and searching for safer substitutes.

"We are working diligently and expeditiously as possible to reduce use of CFCs," said John Campion, a vice president at Baxter Health-Care's Bentley Laboratories in Irvine, which manufactures medical devices that serve as artificial lungs during open-heart surgery.

Although the laboratory's emissions have dropped by 60 percent in the past two years, it is still one of the largest sources in the nation of CFC-113, a widely used solvent.

Foam-product manufacturers in Southern California already face a mandatory cutbacks. By 1991, they must cut CFC emissions by 40 percent, and 84 percent by 1994, under a rule adopted by the AQMD in November.

Future Foam, an Anaheim company that employs 300, is a major source of CFCs, which are used to make flexible foam for furniture.

Officials with the company said they are searching for other agents to make the foam, but have found none so far and will have to scramble to meet the deadlines.