everybody in the business keeps exposure in their workplace well below the federal standard.

Pressure generated by federal and private studies has resulted in the Occupational Health and Safety Administration proposing to lower its standards for EDB in the air of workplaces from 20 parts per million to 100 parts per billion. But even at concentrations set in the proposed stricter standards, six separate risk assessments indicate that there will still be an increased cancer risk from working around EDB.

Working around EDB for a lifetime at the proposed new standard still increases the excess cancer deaths per 1,000 by as much as 117, according to one study. Another study indicates the increased risk of cancer death at the new standard would be between 0.5 and 2.0 per 1,000. Four other risk assessments range between the two.

A 1978 study by the U.S. Environmental Protection Agency indicated the number of excess cancer deaths from exposure to that level would be 67 per 1,000. In 1980 EPA did another study that indicated the number would be 45 per 1,000.

"We have no evidence of increased tumors in our people," Ter Haar said of the EDB industry. "We can't say there wasn't one excess tumor, because the methods are not that sensitive, but we can clearly say that the estimates of the kind that the animal experiments indicated are not right," he added.

The animal studies show far too great a risk, Ter Haar said. "The risks are not that high."

While some groups say the new standard of 100 parts per billion in the air does not go far enough in protecting workers, the risks described in the various assessments pale in comparison to those using the old standard.

Three of eight risk assessments in the federal report indicate that 990 of 1,000 workers exposed to a lifetime of 20 parts per million of EDB in the air, which is the current acceptable level, would die of cancer.

Another assessment places the number of "excess deaths per 1,000" between 400 and 996 at the current legal level of exposure.

The other four risk assessments, all of which were done by different scientists, indicate between 70 and 785 excess cancer deaths per 1,000 at the current level of 20 parts per million.

Even though the legal level of EDB in the workplace has been 20 ppm, "there has probably been no one exposed to 20 parts per million for anytime at all" at Ethyl Corp. says Ter Haar.

Ethyl has not allowed levels to get that high because of its own interest in protecting its workers, he said.

Even before industry became aware that EDB was a cancer-causing agent, Ethyl has been keeping its levels at 1 or 2 ppm, he said.

"Saying 990 out of 1,000 doesn't have any meaning in the real world" because the limits haven't been that high and because the risk assessments for workers have been based on animal studies, said Ter Haar.

Epidemiology studies on humans have been inconclusive because of the relatively small numbers of people who have been exposed for long enough periods that cancers would have had time to show up.

OSHA said that while the epidemiology studies are not large enough to be statistically significant, it has applied the same risk assessment technique used in one of the animal studies to one of the human studies and come up with lifetime results that have a "striking similarity" to those based on rat studies.

Ter Haar said that when it became evident that EDB causes cancer in animals, Ethyl took steps to lower its exposure limits:

"We set a guideline in 1977 or '78 of a tenth of a part per million — the same as the standard now being proposed by OSHA. We have monitored that vigorously and we meet that standard. In some isolated cases, we need to use respiratory protection for short terms."

Ethyl doesn't have any objection to the proposed standard and its workers don't either, said Ter Haar.

Nationally there have been complaints from representatives of unions who allege that the proposed new standard does not go far enough in protecting workers.

Report: EDB cancer risk at Ethyl

By Bob Anderson

Some Ethyl Corp. workers may face a higher normal risk of cancer from exposure to ethylene dibromide, even though the firm has long been meeting lowered exposure levels that are now being proposed by the federal government.

Six risk assessments included in a U.S. Labor Department report on the chemical all indicate some increase in cancer risk as a result of the exposure a worker would obtain from a lifetime in the presence of air contaminated with 100 parts per million of EDB, which is the proposed new standard.

But Ethyl says there is no evidence of cancer increase among its workers, or other workers in the industry and says the data in the federal report is not accurate because it is based on animal tests.

Five years ago, Ethyl lowered its own allowable exposure levels to one-fortieth of the current federal standard after becoming convinced that EDB causes cancer in animals.

Fewer than 50 workers at Ethyl's Baton Rouge plant are exposed to EDB at all, according to Gary Ter Haar, director of toxicology for the company. Most of them are only exposed on an irregular basis, he added.

Ethyl manufactures EDB in Arkansas and uses it here in creation of an additive for leaded gasoline. Several companies also use EDB in pesticides.

Some of the risk assessments included in the federal report indicate that exposure at the current legal level of 20 parts per million could leave 99 percent of lifetime workers with cancer.

Ethyl says that means nothing, because