

## **Cal/EPA Environmental Justice Advisory Committee (CEJAC) Narrative on Cumulative Impacts**

(Adopted by the CEJAC at their February 15, 2005 Meeting)

The goal of the cumulative impact analysis is to understand and characterize effects on public health and the environment; this is not in any way intended to create a burden on a community to prove that effects are occurring in order for these effects to be analyzed or addressed.

A cumulative impact analysis needs to consider all emissions and discharges, including past releases that may still affect public health and the environment, contemporary releases, and reasonably foreseeable releases. A release may be reasonably foreseeable even if it has not been formally identified in writing, such as projects in early stages, but this is not intended to include all potential scenarios without regard to how likely they may be. Impacts may result from releases from a single source, or from more than one source, and they may involve only one environmental media, or they may involve multiple media. All types of releases should be considered, including those that are routine, periodic, or episodic, accidental or intended, or any other type of release that may impact public health or the environment. Impacts may also result from exposures that occur within the home, such as childhood exposures to lead-based paint; these types of exposures may be important in some cumulative impact analyses but not important in others.

The cumulative impact analysis should attempt to provide the most robust characterization of impacts on public health and the environment. Quantitative measures such as quantitative risk assessment can provide important information about these impacts, but there are gaps in the data and tools that are currently available for quantitative analysis; quantitative analyses will often need to be supplemented with semi-quantitative or qualitative assessments. There is a fundamental tension between the need to enhance and expand the analyses used, and the concern that these analyses provide quality information and support sensible decision-making.

Peer review has played an important role in science and environmental regulation, and in certain circumstances, it is

required under statute. At the same time, requiring all data used to be peer-reviewed may create barriers against the development of new and more robust analyses, and may make it difficult for communities to provide information for consideration.

The Committee specifically discussed the need to make better use of knowledge that exists within and about our communities. Business members on the Committee raised concerns, however, that these analyses will ultimately be used in decisions that will affect the creation and maintenance of jobs, and economic growth. In that respect they want to be sure that analyses are based on credible data and sound science.

Some people experience a greater effect from a given exposure, such as infants, children, and the elderly, pregnant women and fetuses, and people who have pre-existing illness or condition that leaves them more susceptible to harm from environmental pollutants. In addition, there are socio-economic factors that can also exacerbate the effect of environmental pollutants, such as race, income, lack of access to health care, and the lack of basic infrastructure (such as adequate nutrition, shelter, and waste disposal, etc.). The assessment of these factors, and how they interact with the effects of environmental pollutants, is an area where the tension about the role of peer review is particularly strong. Communities have a strong desire to have their circumstance and experience considered. The business community strongly feels that the data and tools are not well-developed and that good science and peer review are critical in moving forward in this arena.

Generally speaking, the cumulative impacts analysis is a community-based analysis. The geographic area considered should be large enough to encompass the effects, but not so large as to mask effects through averaging.