

## **Additional CASAC Member Individual Comments on EPA's NAAQS Process**

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**Dr. Sverre Vedal**

**March 29, 2006**

I would like to comment briefly on two of the key questions posed to CASAC panelists.

### Consideration of the most recent available science

First of all, I am concerned that the science that we have available for review already is not providing us with a complete, or entirely valid, picture. This contention is based on the well-documented publication bias present in the air pollution field, at least for population-based findings. An illuminating demonstration of this bias is the contrast between conclusions contained in Health Effects Institute (HEI) scientific reports and some published journal articles derived from the same findings. While there are undoubtedly several causes of this publication bias, investigators, journal editors, and even the journal peer review process, are partly to blame. What is the alternative to limiting what we consider science for the purpose of the CASAC review to the published literature? While I am not intending to promote HEI specifically, one precedent was recently set by HEI in addressing the statistical software problem in time series studies. This process occurred outside the traditional publication process and provided EPA with the information needed in an efficient and credible manner. Generalizing such a process to the task of assessing larger scientific questions may hold some promise and be worthy of consideration. Clearly this would take resources that are currently not available.

### Identifying, characterizing, quantifying, and communicating uncertainties in scientific information

The uncertainties in the epidemiological estimates of effect, estimates that are now the primary bases for recommendations on changes to the NAAQS, are not adequately reflected in the current risk assessment and risk analyses. A formal probabilistic risk assessment that fully takes into account identified uncertainties is needed.

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