

## REFERENCES

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## I REPLY TO LETTERS

We appreciate the opportunity to respond to the letters by Gochfeld and Lioy and of Fagliano et al. regarding our article "Designing a biological monitoring program to assess community exposure to chromium: Conclusions of an expert panel."

We note with pleasure that none of their criticisms concerned the scientific merits of our article and our recommendations for the design of a biological monitoring program for chromium. In fact, each of the authors indicates that the final study protocol incorporated many of the panel's recommendations.

Like the commentators, we agree that some understanding of the circumstances for formation of the panel is useful. In the early 1980s, the three companies that sponsored the panel's evaluation were notified that the chromite ore processing residue (COPR) used as fill in many industrial and some residential areas contained chromium at concentrations that the New Jersey Department of Environmental Protection and Energy (NJDEPE) considered worthy of evaluation. More than 400 newspaper articles have appeared in local newspapers over the past 5 years that have discussed the presence of COPR in soils in and around Hudson County. Clearly, this was a potential public health issue having high media visibility (Paustenbach et al., 1991b).

Over the past 4 years, the 3 companies allegedly responsible for having produced the COPR used as landfill have invested nearly \$10 million in research aimed at characterizing the possible human health risks associated with exposure to the soil/COPR mixture. Virtually all of the research protocols received peer review from experts in the field prior to initiation to ensure that the work was valid and would answer the questions posed. Sixteen articles describing this work have appeared in the peer-reviewed literature, and more will follow.

The three sponsors convened the expert panel because of a genuine concern with the potentially damaging impact of conducting a less-than-thorough investigation. Whenever biological samples are collected in an effort to understand exposure to an environmental contaminant, especially one that appears to be an inhalation carcinogen in some occupational settings, the public deserves data that can be meaningfully interpreted. We believe, as does the U.S. General Accounting Office