July 29, 2004

Information Quality Guidelines Staff
Mail Code 2811R
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460

Re: "Amicus" letter in support of Request for Correction #04019

Dear Sir or Madam:

On May 26 of this year, the U.S. Chamber of Commerce filed the above-referenced request, seeking correction of erroneous physical and chemical property information contained in various public EPA databases. The American Chemistry Council strongly supports this request, for the reasons discussed below, and encourages EPA to grant it. We write also to ensure that EPA is aware of ongoing work in this area coordinated by a nonprofit organization -- a group that might well be willing and able to partner with EPA to improve the quality of EPA's databases of physical and chemical properties.

Interest of ACC

The Council represents the leading companies engaged in the business of chemistry.[1] Our members' products consist of, or contain, a fair percentage of the periodic table of the elements. Our members are also highly regulated under environmental programs administered by EPA or delegated states. As a result, our members can be very significantly affected by calculations involving values for physical or chemical constants derived from EPA databases.

[1] Council members apply the science of chemistry to make innovative products and services that make people's lives better, healthier and safer. The Council is committed to improved environmental, health and safety performance through Responsible Care®, common sense advocacy designed to address major public policy issues, and health and environmental research and product testing. The business of chemistry is a $460 billion enterprise and a key element of the nation's economy. It is the nation's largest exporter, accounting for ten cents out of every dollar in U.S. exports. Chemistry companies invest more in research and development than any other business sector.

The problem addressed in the Chamber's request was actually first identified by a scientist at an ACC member company, who presented his findings to the Society of Risk Analysis in 1999.[2] The Chamber's request expands on that work and details its consequences in a variety of EPA-regulated settings. As the request documents, the variability in these values -- for parameters that are supposed to be "constant" -- can have enormous financial consequences for regulated or responsible parties. Remediation programs are perhaps the area where these costs are greatest, but other EPA programs, whether air, water, waste, or chemical regulation, all rely on the databases cited in the Chamber's request. With values in these databases ranging by multiple orders of magnitude, our members' costs of compliance are directly subject to the same degree -- or more -- of variability.

Importance of this Request under the Information Quality Act

ACC submits that the Chamber's request is one of the most significant Information Quality Act filings that EPA has yet received:

- Its subject matter has extremely broad applicability -- a huge number of entities produce, use, store, emit, discharge, or may be responsible for remediating contamination involving the 24 chemicals in the petition, which include such common ones as benzene, PCBs and vinyl chloride. There may be more affected persons in this case than with any other IQA request EPA has received.
- The request is really a "pure" or "classic" IQA request, in that it addresses parameters that are objectively measurable and should have a single, correct value. Measuring these parameters does not require making professional or science policy judgments.[3] The numbers are widely used by EPA, states and private parties. The values for any given parameter in EPA's databases are enormously variable. And yet, except for the IQA, EPA has no process to correct them.
- The request does not argue that any particular value for these chemicals is the right one. This is not a case, in other words, in which the requested correction would clearly and dependably benefit the requester. A priori, there are no obvious winners or losers under the Chamber's submission. The request is more about good government than advocacy.

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[2] Dale Marino, Eastman Kodak Co., "Variability in Physical Constants from Standard Data Sources and Its Implication for Risk Assessment" (1999). Abstract available at http://www.riskworld.com/Abstract/1999/SRAam99/ab9ab223.htm. Overheads on file with ACC.

[3] At most, chemists might argue about the best method to measure a parameter, or whether a measurement was conducted according to that method.

Reasons for Granting the Request

As noted earlier, the physical and chemical constants involved in this request have correct values -- that is, one can speak meaningfully about whether they are accurate. And as the values for a given parameter can vary by up to ten orders of magnitude across up to 17 EPA databases, necessarily all but one, if not all, the values for any given parameter are wrong. They therefore clearly fail OMB's and EPA's IQA Guidelines' standard of *accuracy*. The values at issue are not *reliable*, for the same reason: how should anyone pick among the competing values? This ability to pick and choose opens up EPA decisions involving the parameters to concerns about *bias*; i.e., that someone chose a high or low value to help or hurt one side of an issue. These parameters therefore fail all three substantive elements of "objectivity" under OMB's and EPA's guidelines.[4]

Given the number of entities affected by the problematic data identified in this request, and how wrong some of those data are, the request raises an issue of real public -- not just individual -- concern. The variable "constants" have a clear and substantial impact on a great number of EPA policies and private sector decisions, and hence should be considered "influential scientific information" under OMB's and EPA's IQA Guidelines.[5] OMB's and EPA's Guidelines require that such information be reproducible.[6] However, the great variability among values for these "constants" means that the values are not reproducible. Instead, multiple attempts to measure them have produced multiple different values. This degree of imprecision should be unacceptable to EPA.

The parameters at issue here -- Henry's Law, octanol-water partition coefficient, etc. -- are the technical nuts and bolts on which the nation's environmental protection system rests. People everywhere look to EPA to provide them, and expect that EPA will provide high quality values. EPA should grant the Chamber's request and announce that it will meet that expectation.

Solving the Problem: A Potential Partner with EPA

ACC understands that it will not be a trivial matter to identify or develop accurate, reproducible values for multiple parameters for 24 chemicals. EPA can and should leverage private sector capacity to do the necessary work. A good place for EPA to start would be the Design Institute for Physical Properties (DIPPR),® an initiative administered by the American Institute of Chemical Engineers. The purpose of DIPPR is "to develop the world's best source of critically evaluated thermophysical and

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[4] *See* 67 Fed. Reg. 8459 (Feb. 22, 2002); EPA/260R-02-008, "Guidelines for Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Environmental Protection Agency" (Oct. 2002), at 15.

[5] 67 Fed. Reg. 8460; EPA Guidelines at 19-20.

[6] 67 Fed. Reg. 8459; EPA Guidelines at 21.

environmental property data."[7] The project:

- Searches out and evaluates existing physical property data to eliminate errors in values;
- Assesses the numerical measure of confidence in the data, to improve and extend existing estimations; and
- Generates and collects new data when needed values are not in the existing literature.

Now in its 25th year, DIPPR is funded by companies and associations, including many ACC member companies, and relies on work conducted by chemical engineers in private companies and universities. EPA can contact DIPPR at

Design Institute for Physical Properties
American Institute of Chemical Engineers
3 Park Ave, New York, N.Y., 10016-5991, U.S.A.
Tel: (212) 591-7319 Fax: (212) 591-8895
E-mail: dippr@aiche.org

In conclusion, ACC strongly endorses the Chamber's correction request regarding physical and chemical properties contained in EPA databases, and encourages EPA to work with DIPPR or other extramural groups to bring those databases up to the level of quality they warrant. If you have any questions or comments about this letter, you may contact me at 703-741-5166 or james_conrad@americanchemistry.com.

Sincerely,

James W. Conrad, Jr.
Assistant General Counsel

cc: DIPPR
W. Kovacs, U.S. Chamber

[7] http://www.aiche.org/dippr/