

**Missouri Department of Health and Senior Services**P.O. Box 570, Jefferson City, MO 65102-0570 Phone: 573-751-6400 FAX 573-751-6010
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DirectorMatt Blunt
Governor

October 22, 2007

Mr. Robert Geller, Director
Hazardous Waste Program
Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102

Subject: Efficacy of Health Profiles

Dear Mr. Geller:

As you are aware, the Missouri Department of Natural Resources (DNR) has asked the Missouri Department of Health and Senior Services (DHSS) to provide an opinion regarding the value of Health Profiles for determining changes in health status around certain Resource Conservation and Recovery Act facilities operating in Missouri.

For over 20 years, the Bureau of Environmental Epidemiology and the Bureau of Health Informatics and their predecessors in DHSS have provided data and technical assistance to corporations developing these profiles, and then have reviewed the documents and made recommendations to DNR regarding their adequacy.

Issues related to the current process are.

1. Difficulty isolating data for the relevant area: ZIP code areas are the smallest areas in which we can both place the residences of patients/decedents in our data and develop population estimates. These areas do not accurately identify the population potentially affected by emissions from a facility. In sparsely populated areas, ZIP codes are often far too large. Sometimes most of the population in a ZIP code that contains a hazardous waste treatment facility may be in the part of the ZIP code area least likely to receive any emissions from the facility.
2. Small numbers: Even if we could precisely identify populations in just the potentially affected areas, we might not identify a substantial health problem should one occur, because the sparse populations around most of the treatment facilities make it difficult to draw valid statistical conclusions.

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3. Migration: Even if there were sufficient numbers and the population could be identified specifically, many of the ill effects of potential emissions develop over many years, and people living in an area during the time covered by a "health profile" might not have lived there long enough to have been affected by emissions from the facility. Conversely we have no way of knowing about persons who may have developed an adverse health condition and moved away from the area before diagnosis, treatment or reporting occurred.
4. Confounding variables: Serious illnesses that might be attributable to environmental contamination usually have numerous other possible causes (e.g. lung cancer and smoking), and it is nearly impossible to learn the roles of the various contributing factors using the available data.

Therefore instead of continuing to require a document for these facilities that both agencies feel may not create a valid profile of the health status of persons residing in the area potentially affected by these facilities, DISS is willing to join a workgroup that includes DNR, stakeholders and the public to determine if it is possible to create a more effective and protective mechanism to fulfill the requirements of 260-395(5) RSMo. Please feel free to contact Gale Carlson at 751-6102 with any questions you may have.

Sincerely,



Scott A. Clardy, Administrator
Section for Disease Control and Environmental Epidemiology

SAC:GMC:mp

cc Gale Carlson