

December 6, 2005

Dear Mr.:

The Agency for Toxic Substances and Disease Registry (ATSDR) has received your July 26, 2005 request for correction concerning the June 2000 Illinois Beach State Park (IBSP) Public Health Assessment.¹ ATSDR has a cooperative agreement with the Illinois Department of Public Health (IDPH) to evaluate public health issues related to human exposure to hazardous substances in Illinois. The June 2000 IBSP Public Health Assessment (PHA) was generated as part of the ongoing relationship between ATSDR and IDPH. In order to respond to your request, we will describe the PHA process and the opportunity for public comment and then discuss the specific issues that you raise in your letter.¹

PHAs differ from the more quantitative risk assessments conducted by regulatory agencies, such as the U.S. Environmental Protection Agency (EPA). Both types of assessments attempt to address the potential human health effects of low-level environmental exposures, but they are approached differently and are used for different purposes. The EPA quantitative risk assessment provides a numeric estimate of theoretical risk or hazard, assuming no cleanup takes place. The PHA is used by ATSDR to identify possible harmful exposures and to recommend actions needed to protect public health. ATSDR considers the same environmental data as EPA, but focuses more closely on site-specific exposure conditions, specific community health concerns, and any available health outcome data to provide a more qualitative, less theoretical evaluation of possible public health hazards. The PHA is more exposure-driven than an EPA quantitative risk assessment.

PHAs prepared by Cooperative Agreement Partners for ATSDR include a certification page. The certification page of the IBSP PHA contains the disclaimer that the IBSP PHA "is in accordance with approved methodology and procedures existing at the time the public health assessment was begun." ATSDR realizes that newer methodologies and better scientific analysis are always evolving. ATSDR strives to base public health

¹Although your request initially identifies the challenged information as a 2005 press release disseminated by state agencies and the EPA that references the 2000 IBSP PHA, we understand that your request concerns the PHA.

evaluations on the best science available at the time of the evaluation.² As new data and information become available, ATSDR re-evaluates sites, as warranted.

The first concern raised in your request for correction with the IBSP PHA is that the environmental samples were analyzed using polarized light microscopy (PLM). Although PLM still has value as a field screening tool, you are correct in observing that there are more accurate analytical methodologies for asbestos evaluation today. Your request cites a December 20, 2001, EPA memorandum regarding PLM analytical methods. The memorandum you cite was released over a year after the IBSP PHA and not available for review at the time of the 2000 PHA. In June 2005, the University of Illinois-Chicago (UIC) released an interim report on a health hazard evaluation conducted at IBSP in conjunction with the Centers for Disease Control and Prevention (CDC), and Illinois Department of Public Health (IDPH). One of the reasons the study was conducted was to use more sensitive sampling methods that are more predictive of actual exposure levels. The report found that levels of asbestos in the sand on several of the beaches were "statistically significant" in terms of the level above typical background. However, the UIC study concluded that the low levels of asbestos in the sand samples would not be expected to result in an increased risk of cancer and that the IBSP site does not pose a public health hazard. This is consistent with the findings of the 2000 PHA. The UIC study is currently undergoing peer review; more information can be found at the web address http://www.uic.edu/sph/glakes/occupational/occu_hazards_selected.htm.

The next concern raised in your request with the IBSP PHA is that the 1% threshold was utilized. Your request cites a June 10, 2004, EPA memorandum concerning this issue. This memorandum is dated 4 years after the release of the PHA and could not have been taken into consideration during the preparation of the PHA. The methodology used at the time the PHA was prepared was appropriate. Moreover, the 1% was not used to evaluate whether or not health effects would occur; the 1% was used to determine if the sand would be defined under EPA regulations as asbestos containing material (ACM). Material containing less than 1% asbestos does not have to be handled as ACM.

The next concern raised with the IBSP PHA relates to the use of a "hybrid" asbestos bulk sampling and analytical method. The hybrid method was based on an American Society for Testing and Materials (ASTM) method for detecting asbestos structures in dust. The laboratory, TEM Incorporated, spiked samples of clean sand and determined that method was accurate and had a good recovery rate. In addition, only select sand samples were analyzed using the "hybrid" method. The majority of the samples were analyzed using

²ATSDR and its Cooperative Agreement Partners such as IDPH also seek extensive public comment on draft PHAs and take all comments into consideration before issuing the final PHA.

PLM. Again, ATSDR recognizes that other analytical methods would be used today instead of PLM for asbestos analysis. We note the September 2004 USEPA Risk Assessment performed by Dr. Berman that your request cites was not available when the IBSP PHA was initiated. This was another reason the June 2005 UIC study was done. The more sensitive form of sampling would better indicate whether any health risk involving asbestos at IBSP exists. The findings from this more sensitive form of sampling were consistent with those in the 2000 PHA.

The next concern raised in your request is the use of phase contrast microscopy (PCM) air testing for non-occupational exposures. At the time of the IBSP PHA, the only reference values that were available required the determination of PCM equivalents. Therefore, IDPH and ATSDR needed PCM data for comparison purposes. Asbestos fibers were not detected in any air or water samples. Although fibers might exist at levels less than the detection limits of the analytic methods, the detection limits were well below the health comparison values used. Therefore, exposure to any fibers that might be present would not be expected to cause health effects.

The next concern raised is the seasonality of the sampling that occurred for the IBSP PHA. Even though leaf blowers were used to suspend asbestos fibers in to the air, ATSDR agrees that had the samples been collected during a dry summer they would have been more representative of a "worst case scenario". We recognize that additional field sampling was conducted from June through September 2004, the results of which were used for the June 2005 UIC report. These more recent tests were done during the summer and used a more sensitive method of analysis. Nevertheless, evaluation of these sampling results supports the conclusion of the original health assessment that playing on the beach does not pose a public health hazard.

The next concern raised in your request is that amphibole fibers cannot be differentiated from chrysotile/serpentine fibers by the analytical methods used in the IBSP PHA. This was another reason the June 2005 UIC study was done. The more sensitive form of sampling that was used could distinguish fiber types and would better indicate whether any health risk involving asbestos at IBSP exists.

Another concern raised in your request is that of the use of an Asbestos Hazard Emergency Response Act (AHERA) Transmission Electron Microscopy (TEM) air clearance on an uncontained evaluation area. This concern involves whether the use of leaf blowers blew the asbestos fibers off the beach. The leaf blowers were an attempt to aggressively agitate the asbestos-containing sand in order to suspend the microscopic fibers of concern. We disagree that the fibers would be "blown off the beach." Instead, the microscopic fibers would be suspended to get an air sample that reflects the maximal dispersion of asbestos fibers from the sand into the air.

Finally you request to have the IBSP PHA withdrawn so that the State of Illinois will perform a scientifically sound human health risk assessment. We do not believe

withdrawal is warranted. The conclusions of the 2000 PHA are supported by the June 2005 UIC report. Although the beach sand contains a higher concentration of asbestos fibers than would be found on a typical beach, the levels were not high enough to cause any adverse health effects. The information contained in the PHA was valid and accurate at the time it was written. Much more sensitive and extensive sampling at the beach in the last five years has substantiated the conclusion in the IBSP PHA. The conclusions remain the same and in fact have been further substantiated by additional sampling and health hazard evaluation activities. As new data and information become available, ATSDR re-evaluates sites. At this time, a re-evaluation is not warranted.

We appreciate your comments and questions related to asbestos contamination and hope that the information we are providing helps clarify the IBSP PHA. If you wish to appeal this response to your request for correction, you may submit a written appeal or electronic request for reconsideration within 30 days of receipt of our response. The appeal must state the reasons why the agency response is insufficient or inadequate. You must attach a copy of your original request and the agency's response to it. Also, clearly mark the appeal with the words, "Information Quality Appeal" and send the appeal:

Mail:

Centers for Disease Control and Prevention
Management Analysis and Services Office
1600 Clifton Road, N.E., Mailstop E-11
Atlanta, Georgia 30333

Fax: 404-929-2781

Electronic-Mail: <mailto:InfoQuality@cdc.gov>

Electronic Submission: <http://www2.cdc.gov/PublicInquiry/PIAppealForm.asp?theID=35>

If you have any further questions or concerns, please do not hesitate to contact Dr. Ken Orloff, Associate Director for Science, Division of Health Assessment and Consultation, ATSDR, (404) 498-0506.

Sincerely yours,

Dixie E. Snider, Jr., M.D., M.P.H.
Chief Science Officer
Office of the Director