

*EPA SIDESTEPS INDUSTRY CALL TO EMPHASIZE UNCERTAINTIES ON
BIOSOLIDS' RISKS Superfund Report April 4, 2011*

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Superfund Report

April 4, 2011

SECTION: Vol. 25 No. 7

LENGTH: 962 words

HEADLINE: EPA SIDESTEPS INDUSTRY CALL TO EMPHASIZE
UNCERTAINTIES ON BIOSOLIDS' RISKS

BODY:

EPA is sidestepping calls from wastewater treatment groups to emphasize the scientific uncertainties associated with human health risks stemming from land-application of sewage sludge, issuing a long-awaited report for assessing the risks of partially treated biosolids that largely avoids the question of whether there is a causal link between pathogens found in biosolids and human illnesses. The report, "Problem Formulation for Human Health Risk Assessments of Pathogens in Land-Applied Biosolids," which was posted on EPA's website March 28, seeks to provide "useful suggestions" for industry officials to assess the risk of pathogens in the land application of class B biosolids, but the document emphasizes that it is not to be used as guidance and that more data is needed in order for utilities to construct more "defensible" risk assessments." The report is available on InsideEPA.com. That conclusion is likely welcome news for wastewater industry groups that had urged EPA in 2008 comments on a draft version of the report to avoid pushing for regulatory or policy solutions until more research is done on the effects of the biosolids on humans and the environment. But the agency declined a request from the National Association of Clean Water Agencies (NACWA) to emphasize in the report's executive summary language from an appendix showing "that a causal association between exposure to pathogens in biosolids and adverse effects on human health has not been documented." While a NACWA source welcomed EPA's report for providing "useful information on research needs and help guide future work," the source expressed disappointment that the agency had not adequately emphasized the scientific uncertainties. "I think it's clear that EPA sees this as purely a research-oriented document and has decided not to include any qualitative statements on risk or the lack of linkage between biosolids and adverse health impacts.

We certainly would have preferred for EPA to reiterate the protectiveness of its existing

biosolids regulations in the document in terms of pathogen reduction and management requirements," the source says. Biosolids are the byproduct of wastewater treatment. Many in the industry favor land-application as a disposal option and argue that EPA regulations ensure it is safe. But many environmentalists and others say it is not a safe practice, charging that its application on or near crop land can contaminate the food supply with pathogens, viruses and bacteria that result in human illnesses. As a result, activists say, land application should be banned. Wastewater officials, however, have been encouraging EPA to take action on biosolids in order to reassure the public that the practice is safe. In EPA's new report, the agency lays out "concepts and planning considerations" for assessing risks of land application, including identifying hazards, developing models and laying out an analysis plan. The document is "meant to be generic and broadly useful, and can be adapted for use in site-specific risk assessments" for "five scenarios of common public concern:" residences and schools, farm residents, children and drinking water from ground and surface water. "In particular, this work focuses on critical human health assessment endpoints and potential pathogens that should be considered; develops conceptual models linking the most likely stressors, pathways and health responses of concern; evaluates the overall quality and utility of available risk assessment data, tools and methodologies; and develops an analysis plan suggesting additional research and methods for improving risk assessments in this topical area and supporting EPA's decision needs," according to the report. In addition to providing information to assessors, the document is also aimed at researchers, who can use "needs identified in this report to select and prioritize research projects related to pathogens in biosolids. It can also help researchers to understand how to design their studies to generate results relevant to risk assessment." The report comes as the result of a 2002 National Research Council review of the agency's sewage sludge disposal regulations. The agency was charged with reviewing its priorities for the biosolids program, part of which was to "provide a problem formulation and analysis plan relating to uncertainties associated with conducting quantitative microbial risk assessments on land-applied biosolids." However, as the agency points out, there are many data gaps remaining concerning how pathogens in biosolids react once in the environment, and uncertainties linger with how to measure pathogens, the transferability of lab results to large-scale application and the reaction of biosolid pathogens once they are introduced into water, among other things. NACWA pointed to these uncertainties in its 2008 comments on the draft document as a reason "to prevent the development of a risk-based regulatory approach for pathogens in biosolids at this time." However, the comments said it is important that EPA continue to encourage data that shows there is no causal link between exposure to pathogens in biosolids and adverse human health effects to "help ensure that biosolids continue to be managed in a manner that protects public health and environmental quality" (Superfund Report Nov. 17, 2008). An official with the Washington Department of Ecology echoed this call, telling EPA in its 2008 comments that the agency should use the problem formulation report as "a first step in the development of a national level risk assessment" for pathogens in biosolids that could "confirm the safety of current practices" of states and municipalities who use land application as a way to dispose of the sludge. -- Jenny Hopkinson

LOAD-DATE: April 4, 2011