

Sewage Sludge Primer

1) What is sewage sludge?

Sewage sludge is the necessarily hazardous by-product of the treating of wastewater. Wastewater brings to sewage treatment plants all the wastes sent into the sewers from drains and toilets: industrial wastes, hospital wastes, commercial wastes, “human waste,” radioactive waste, stormwater runoff, and every other kind of hazardous, toxic, and biological waste material produced in a municipality and carried away from its source via the sewer. Whatever toxins, hazardous materials, and other pollutants happen to be removed from the wastewater in the process of wastewater treatment, and that are concentrated in the sludge, will remain in the sludge. Nothing in the treatment of sewage “treats”—e.g., detoxifies--sludge. This is as true of the toxins—organic and inorganic—as it is of the pathogenic viruses and bacteria.

2) What is “biosolids”?

The word “Biosolids” is a made-up euphemism for sewage sludge that has no scientific or legal basis. However, it has been adopted by the waste industry and the waste generators, and it can be found in place of the actual word, sludge, throughout their marketing materials and literature.

In 1991, the Water Environment Federation (an association of sewage treatment plant operators, municipal sewage authorities, and commercial sludge haulers) established a “Name Change Task Force” which held a national contest to invent a more appealing name for sewage sludge. The winning word was “biosolids.” The Federation also established the “Biosolids Public Acceptance Task Force” whose purpose was to overcome the growing opposition to “land application” of sewage sludge. The Task Force received administrative and financial support from the division of the Environmental Protection Agency that finances the construction of sewage treatment plants.

3) What is the “land application” of sewage sludge?

EPA has promoted the “land application” of sewage sludge since 1993 as the preferred method for municipal sludge disposal. Millions of tons of hazardous sewage sludge have subsequently been spread on farmland, school yards, and parks in the United States, and many people living near sludged agricultural sites and many farm animals fed on sludged silage and hay have been made very sick.

In February 2008, the McElmurrays, dairy farmers from Georgia, received an order and judgment issued by Federal Judge Anthony Alaimo of the 11th Circuit Court. The order addresses and confirms that there have been decades of deceit by the EPA and finds

against the USDA and the EPA. It acknowledges that the sludge applications on the McElmurrays' farm were responsible for killing hundreds of dairy cattle and contaminating the milk supplies in several states. In the ruling, Judge Alaimo said, "senior EPA officials took extraordinary steps to quash scientific dissent and any questioning of EPA's biosolids program." (United States District Court Southern District of Georgia, *McElmurray v. U.S. Department of Agriculture*, Case 1:05-cv-00159-AAA-WLB Document 67, Filed 02/25/2008.)

4) What are some of the documented hazardous materials in sewage sludge?

In addition to toxic metals, pathogenic viruses and bacteria, some hazardous materials in sludge include: endocrine disruptors like brominated flame retardants (PBDEs, which are a lot like PCBs), phthalates like DEHP (a reproductive and developmental toxin), persistent and toxic ingredients in personal care products (e.g., triclosan and galaxolide), and pharmaceuticals.

A 2009 EPA study ("Targeted National Sewage Sludge Survey") concluded that all sewage sludge contains toxic and hazardous materials, including large numbers of endocrine disruptors.

For a list of peer-reviewed, technical papers documenting hazardous materials in sewage sludge, see <http://www.sludgenews.org/resources/>

5) Is there any process at the sewage treatment plant that detoxifies and/or removes hazardous materials from the sludge?

No. The sole job of wastewater treatment is to reduce pollution in the effluent (the treated wastewater that leaves the plant): there is no treatment or "detoxification" of any hazardous or toxic material in the sludge.

6) It is claimed that some industrial wastewater discharges are "pretreated" before they go down the drain. Does "pretreatment" mean that none of the "pretreated" hazardous or toxic wastes go down the drain?

No. "Pretreatment" means only that the concentrations of the limited number of hazardous materials covered by this program may have been lowered in the wastewater. The quantity and toxicity of hazardous materials will remain unchanged. As anyone who has worked in the field of environmental protection for decades knows, the amount—not the concentrations—of hazardous or toxic material is the accurate measure of pollution in the environment.

