## Water: Sewage Sludge (Biosolids)



# Introduction

Thirty years ago, thousands of American cities dumped their raw sewage directly into our nation's rivers, lakes, and bays. Today, because of improved wastewater treatment, our waterways have been cleaned up and made safer for recreation and seafood harvest. And, because of the strict Federal and state standards, the treated residuals from wastewater treatment (biosolids) can be safely recycled. Local governments make the decision whether to recycle the biosolids as a fertilizer, incinerate it or bury it in a landfill.

**Biosolids Quick Links**

- Guidance
- Publications
- State & Regional Coordinators (PDF) (14 pp, 259K, About PDF)
- NPDES Permits
- Fact Sheets

Biosolids are the nutrient-rich organic materials resulting from the treatment of sewage sludge (the name for the solid, semisolid or liquid untreated residue generated during the treatment of domestic sewage in a treatment facility). When treated and processed, sewage sludge becomes biosolids which can be safely recycled and applied as fertilizer to sustainably improve and maintain productive soils and stimulate plant growth.

Only biosolids that meet the most stringent standards spelled out in the Federal and state rules can be approved for use as a fertilizer. Now, through a Voluntary Environmental Management System, being developed for biosolids (EMS) by the National Biosolids Partnership (NBP), community-friendly practices will also be followed.

Although cities decide how best to manage their biosolids, the U.S. Environmental Protection Agency (EPA) is obligated and continues to provide the public with educational information, based on the best science, about the safe recycling and disposal of biosolids.

Biosolids - Frequently Asked Questions

EPA Regional and State Biosolids Coordinators (PDF) (14 pp, 259K, About PDF)

### Biosolids - Guidance

Guide To Field Storage of Biosolids and Other Organic By-Products Used in Agriculture and for Soil Resource Management

Use and Disposal of Biosolids. EPA is publishing a final rule for dioxin and dioxin-like compounds (dioxins) in biosolids.

The Federal biosolids rule is contained in 40 CFR Part 503. This rule is described in the EPA publication entitled: A Plain English Guide to the EPA Part 503 Biosolids Rule. The risk assessment for the Federal Part 503 rule that governs the land application of biosolids took nearly ten years to complete and had extensive rigorous review and comment. The risk assessment did evaluate and establish limits for a number of pollutants. These limits may be found in chapter four of the EPA publication: A Guide to the Biosolids Risk Assessments for the EPA Part 503 Rule. In the process of establishing these limits, EPA compared the relevant toxic's exposure data, which was obtained from a cross section of representative studies, to the appropriate oral reference dose (RfD) and human cancer potency (Q1*) values, (i.e., the allowable dose of ech pollutant.) These exposures were evaluated via 14 pathways of exposure with the most limiting pathway being chosen as the limit. In spite of all the safety factors and uncertainty factors built into the process, environmental and human health risks were found to be very low.

Radioactivity in Sewage Sludge and Ash- Interagency Steering Committee on Radiation Standards (ISCORS) published final recommendations for managing radioactive materials in sewage sludge and ash.

### Biosolids - Publications

- Selected Documents
- Ordering Publications

The National Biosolids Partnership (NBP) is a voluntary program to promote effective biosolids management involving the Water Environment Federation (WEF), the Association of Metropolitan Sewerage Agencies (AMSA), and U.S. EPA. EPA serves as an advisory member to the Partnership. More information about the NBP can be found at www.biosolids.org (exit disclaimer).

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**EXHIBIT "A"**