

# **CITIZENS FOR SLUDGE-FREE LAND**

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## **Testimony of Caroline Snyder Ph.D.\***

### **Senate Environment and Public Works Committee**

**September 11, 2008**

On behalf of Citizens for Sludge-Free Land (CFSL), I appreciate the opportunity to present written testimony to the Senate Environment and Public Works Committee that is investigating the US Environmental Protection Agency's long-standing denial and cover up of the many serious health and environmental problems that have been associated with the land application of municipal sewage sludge. The cover up and some of the adverse impacts have been documented in the recent peer reviewed scientific literature, in other scientific documents, and in court rulings<sup>1,14,17</sup>

The 503 sludge rule is based on questionable science.<sup>12,13,16</sup> Most land applied sludge is such a complex and unpredictable mixture of thousands of industrial pollutants, that it can never be tested or regulated reliably to declare the practice safe. The 2002 National Research Council (NRC) of the National Academy of Sciences warned that it will never be possible to identify the hazardous constituents in sludge and their interactions, or to do a reliable risk assessment of land application that will protect human health.<sup>12 p328</sup> For that reason CFSL, joined by other non-profit agricultural, environmental, and health organizations, opposes the use of sludge as a soil amendment or fertilizer and urges Congress, state legislators, and the waste water industry to phase out land application and support safer, and more cost-effective alternatives for sludge use and disposal<sup>2</sup>.

The Federal Clean Water Act defines sewage sludge as a pollutant. Eighty percent of the nation's land applied sludge is generated in highly industrialized urban centers and contains thousands of man-made chemicals, many of which are toxic and persistent. So EPA's claim that land application is "recycling of valuable nutrients back to the land" is inaccurate and misleading. Land application of sewage sludge transfers biological and chemical pollutants from large urban centers to relatively pristine rural farms and forests.

EPA and USDA scientists, who wrote the current land application policies, knew that the rule was based on weak or non-existent science. Now, fifteen years later, it is

becoming increasingly obvious that the sludge rule, CFR 40 Part 503, does not adequately protect human health, live stock, agricultural productivity, or the environment.<sup>1, 3-14,15,16,20</sup> Unlike sludge regulations in many other countries, the US regulations are based on a deeply flawed risk assessment<sup>12</sup> that used unreliable models and simplistic assumptions to justify cumulative pollutant loadings on soil, until yields are radically reduced, and the treated land can no longer grow crucial crops.<sup>13</sup> Our nation's agricultural land is precious, and its health and productivity need to be protected for future generations.

Since the 503 sludge rule lacks a solid scientific basis, reflected, for example, by hundreds of sludge-exposed people who have reported serious adverse health effects,<sup>15</sup> the rule needed to be buttressed by a well funded and well organized public acceptance campaign, as well as narrowly scoped and tightly controlled research. EPA's self-described "gatekeepers" made sure that only those scientists were supported and funded, who saw nothing wrong with the rule.

Nevertheless by 2000, after spending millions of dollars on public acceptance campaigns,<sup>14 p419</sup> EPA's land application program was in serious trouble. The agency had to deal with mounting criticism of the 503 rule from many fronts. First, the disturbing investigative reports by the media of serious illnesses linked to sludge-exposure.<sup>14 p.424; 15</sup> Next, a major study by Cornell soil scientists--which EPA and USDA authors of the 503 rule tried unsuccessfully to suppress and discredit--<sup>14 p418</sup> concluding that the 503 rule did not protect human health, agricultural productivity, or environmental health.<sup>16</sup> Followed by two Congressional Hearings ( *EPA's Sludge Rule: Closed Minds-Open Debate*. (March 22 2000), and *Intolerance at EPA: Harming People, Harming Science*. (Oct 4 2000). Worse, there were several ongoing major, multi million dollar lawsuits, alleging that sludge-exposure had caused human and livestock illnesses and deaths. One case, in NH, alleged that dozens of previously healthy people, including a young man who later died of respiratory failure, got sick after having been exposed to 610 tons of stockpiled and chain- dragged sludge applied on a hayfield near their residences. The other major lawsuits, filed by two farmers in Augusta GA, alleged that their prize winning dairy herds were virtually wiped out and their land ruined because their cattle had ingested forage grown on land that had repeatedly been treated with sludge containing high levels of hazardous chemicals.<sup>14 p 421-422</sup> To top it off, one of the agency's own senior research scientists, David Lewis, began investigating cases of illnesses and death linked to sludge exposure and presented his findings at various scientific meetings. EPA had to mobilize a major offensive to protect its land application policies.

For example, EPA made sure that the NRC report, that was evaluating the scientific basis of the 503 rule, would not include any obvious damaging information about sludge. In his preface to the NRC report, panel chair, Tom Burke, stated that his committee "searched for evidence on human health effects related to biosolids exposure". He and his committee did not have to search. Before they even started their deliberations, the evidence was all around them, including in EPA's own files which contained "thousands

of allegations of problems” linked to land application.<sup>18</sup> However, instead of providing the panel with this information, EPA officials gave false and misleading testimony to the committee, claiming, for example, that the PA Department of Health had investigated the death of a sludge-exposed child and concluded that the death “was not attributable to biosolids.”<sup>14p419</sup> EPA also provided the panel with a pre-publication copy of an article, “funded, expedited, and co-authored by EPA”—<sup>14 p423</sup> that used false and fabricated data to prove that no livestock had ever gotten sick or died from ingesting forage grown on sludged land.<sup>14 pp421-422</sup> EPA was especially eager to discredit the research of David Lewis who was investigating and documenting adverse health effects. Repeated earlier agency attempts to stop his work had failed. It was essential to delete any references to the Lewis et al peer reviewed sludge research, even though the Lewis et al findings were germane to the committee’s central task. Lewis’ name does not appear anywhere in the report, although the panel incorporated many of his recommendations.<sup>12 p332 et passim</sup>

Resorting to these dishonest tactics --deleting credible published research, but including fraudulent unpublished data—enabled panel members to conclude, “that there is no documented scientific evidence that the Part 503 rule has failed to protect public health.”<sup>12 p 3 et passim</sup> EPA hoped that this one sentence from the report would protect the rule, as well as the reputation of those who wrote it.

The no-documented-evidence sentence is serving EPA’s Office of Water well. It is frequently quoted by defendants in sludge-related lawsuits, by state agencies, and by sludge brokers, to falsely assure farmers, the media, and legislators that sludge spreading is not only safe, but based on sound science. In fact, two months after the release of the NRC report, the nation’s major sludge broker published a brochure, citing the no-documented- evidence sentence four times. The brochure also included EPA’s Deputy Administrator of the Office of Water, Benjamin Grumbles’ assurance, that “the NRC report confirms EPA’s view that the existing sewage sludge regulations protect human health.”<sup>14 p 423</sup> From “no documented evidence” to “the 503 rule protects human health” it is not difficult to move to the final and ultimate level of deception, by ludicrously claiming that hundreds of sludge- exposed people, living in different parts of the country, and all reporting identical dermal, gastrointestinal, and respiratory symptoms, are imagining their illnesses and suffering from fecal aversion and mass hysteria.<sup>14p425</sup>

Since the publication of the NRC report, serious new environmental and health concerns about sludge use have been raised in the scientific literature.<sup>1; 5-11</sup> In-depth investigative reports and court rulings have identified additional victims and incidents of environmental damage, as well as the continuing gatekeeper-assisted attempts by federal and state agencies to manipulate data and make false statements to deny and cover up these incidents and the inadequacy of the 503 rule.<sup>10; 17; 19-21</sup>

In 2002, the Sierra Club urged EPA not to fund scientists for crisis management and for persuading the public, the media, and legislators that land application is safe<sup>23</sup>

*page four of five –Snyder-*

EPA should not be subverting the concept of "risk communication" by working with sludge trade groups, to develop multimedia public relations campaigns aimed at promoting the safety of sludge spreading and silencing citizens and scientists who question the adequacy of the current rules. So long as EPA continues to attack scientists who publish negative findings on land application, the agency's biosolids program will have no credibility.

No doubt EPA and its partners will request additional funding to address some of the many "uncertainties" identified in the 2002 NRC report. Yet if these funds are used to support the research of the same scientists who have historically engaged in disseminating biased and misleading data to cover up serious health and environmental problems associated with land application, nothing will change.

It is crucial that Congress re-establishes honesty and integrity within EPA's Office of Water. It is crucial that your committee investigates the root problem: EPA's role in deliberately and knowingly covering up sludge incidents, its role in manipulating test results and data, its role in the misuse of government funds, and its role in quashing scientific dissent by discrediting its own top research scientists. Meanwhile, CFSL appeals to your committee to support legislation that phases out the risky practice of spreading this unpredictable and highly complex contaminated waste on the nations' fields, farms, and forests.

There are more cost-effective and environmentally friendlier ways to manage the tons of sludge that are generated daily by the nation's wastewater treatment plants. Currently between 40% and 60% of wastewater treatment costs are devoted to sludge management. Existing, new, and emerging and more cost-effective technologies exist that use sludge as a biomass feedstock for generating renewable energy.

For example, in St. Paul MN, three low emission fluidized bed incinerators, using the von Roll technology, treat the city's sludge at an annual energy savings of over a million dollars. In Rochester NH, landfill methane, that otherwise would contribute to global warming, is piped to Durham to power the University of New Hampshire campus. In Greensboro NC, landfill methane helps power a cotton mill. In Sanford FL a gasification system uses sludge to produce syngas.

We urge your committee to introduce legislation that will support these types of cost-effective, environmentally friendly and carbon neutral sludge use options. They protect health, farmland, and the environment, as well as reducing fossil fuel use and the resulting emissions of greenhouse gases.

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