



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING


COAL FILE

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DATE: November 6, 1992

TO: Dianne Nielson, Director  
Lowell Braxton, Associate Director

FROM:  Priscilla Burton,  
Henry Sauer,  
Holland Shepherd, Senior Reclamation Specialists

RE: Status of Regulations Governing Land Application of Sludge.

## SUMMARY:

We attended a luncheon meeting of Publically Operated Treatment Works (POTW) managers on 10/22/92. Sixteen POTW operators from around the state were in attendance. Also present were Paul Krauth (DEQ, Water Quality - Construction Assistance), Chris Cline (DEQ, Solid & Haz Waste), and Lisa Rogers (DEQ, Water Quality - Permitting). Applicable regulations for land application of sludge were discussed. The need for land disposal alternatives was voiced mainly by the Wasatch Front POTW managers: Garland Mayne (Dist. Super., Timpanogos Special Service District); and Reed Fisher, Gen Mngr, Central Valley Water Reclamation Facility).

## ANALYSIS:

Wastewater treatment works sludge may be disposed of on lawns, trees, and shrubs after anaerobic digestion, drying and one year of storage. This is found in Part 1 "Definitions and General Requirements of R317 UAC (see UAC R317-1-6.4).

Land application of sludge which does not fit into the digested, dried and aged (1 year) is currently governed by the regulation UAC R317-3-9.9 and will be evaluated by the Executive Secretary of the Div. of Water Quality, DEQ. This rule allows for evaluations of land application proposals based on treatment of the sludge, sludge characteristics, application rate, soils, ground water, surface water, and public health considerations as described in R317-3-9.9. The minimum requirements to be considered by the Executive Secretary for land application proposals is provided in 40 CFR 257 (criteria for sludge classification), 40 CFR 260-265 (hazardous waste rules) and 40 CFR 761 (PCB regulations).

Several approvals have been issued under the authority of R317-3-9.9. The latest approval of a land application proposal was issued by the Executive Secretary (Don A.

Ostler) on October 15, 1992. This was an approval to apply a one-time application of 25 dry T/ac of sewage sludge from the Central Valley Water Reclamation Facility to 300 acres owned by the Ambassador Gun Club in Salt Lake County.

A Draft of 40 CFR 503 was distributed to POTW operators at this meeting. This revision of 40 CFR 503 will classify sludge according to degree of pathogen reduction (A or B) and concentrations of heavy metals (POTW operators refer to "clean or non-clean"). The metals being monitored are As, Cd, Cr, Cu, Pb, Hg, Mo, Ni, Se, Zn and Tables 1 through 3 of draft Part 503.13 details the limitations. As currently proposed, Class B/clean or non-clean sludge may be land applied in areas of restrictive access (a distance from human activities). Class A/clean or non-clean sludge can be applied in high traffic areas. Non-clean sludges are subjected to cumulative loading restrictions (40 CFR 503.12 and 503.13, Tables 1 & 2). The cumulative loading limits do not apply to "clean" Table 3 sludge. Analysis of the sludge is the responsibility of the POTW operator (40 CFR 503.12(e)). Record keeping and monitoring of the land application must be conducted (40 CFR 503.16 and 503.17). Clean sludge (Table 3) has reduced management and record-keeping requirements. These draft regulations are under review and are subject to change.

#### CONCLUSION:

For the present, any land application of sludge which has been digested, air dried and aged one year may be released from the POTW without record keeping or notification of the State. A proposal to land apply sludge which has not been aged for one year must be addressed to the Executive Secretary of the Division of Water Quality for review. The Exec. Secretary will route the request to the Design Evaluation Section headed by Kiran Bhayani. (The proposal should originate from the POTW).

To promote and permit the use of sludge in land reclamation, we suggest that a summary of the regulatory requirements should be provided in letter form to coal & mineral mine operators with a reply requested from interested parties. The Division could itemize the upcoming, coal, abandoned mined lands, & mineral reclamation projects for the next year, to generate a list for the POTW managers. They could then contact mine operators and discuss the economics and feasibility of transportation and application of sludge. We would like to meet with management to further discuss our involvement in this process.

cc: John Adams, Chairman, POTW Mngrs  
Kiran Bhayani, DEQ Design Eval Sec  
Don Hilden, DEQ Permits & Compliance Sec

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