

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

400 P Street, 4th Floor
P. O. Box 806
Sacramento, CA 95812-0806

(916) 322-3670



August 8, 1991

Mr. Danny L. Mercer
ADM Resource Recovery
6670 Amador Plaza Road
Dublin, CA 94568

Dear Mr. Mercer:



SCRAP METAL EXCLUSION PERTAINING TO LEAD SHOT

This letter is in response to your July 12, 1991 letter to the Department of Toxic Substances Control (Department). In your letter, you described a project on which you are working in Fremont, California, in which lead shot (resulting from trap shooting with shotguns) is mixed with the surface layer of soil at a site being developed for residential housing. The surface layer of soil is being excavated to accommodate this development, and the excavated soil is to be sent to the Geer Road landfill. Your concern was the classification of the excavated soil. Specifically you asked whether the lead shot would be considered scrap metal, and therefore excluded from testing and regulation as hazardous waste, or whether the soil mixed with lead shot would require testing to determine its characteristics prior to its disposal.

The definition of scrap metal, found in Section 66260.10, Title 22, California Code of Regulations (22 CCR)¹, states that "'scrap metal' means any one or more of the following:

- (1) Manufactured, solid metal objects and products;
- (2) Metal workings, including cuttings, trimmings, stampings, grindings, shavings, and sandings; or
- (3) Solid metal residues of metal production."

Within the definition is also a list of exclusions for metallic wastes which are not considered scrap metal. These exclusions include under subsection (b)(6), "Sludges, fine powders, semi-solids, and liquid solutions that are hazardous wastes." Section 66261.6(a)(3)(B), 22 CCR [formerly §66804(a)(2), 22 CCR] states that scrap metal is not regulated as a hazardous waste. The lead shot in this case would be considered a manufactured, solid metal object or product and therefore excluded from regulation as a hazardous waste pursuant to §66261.6(a)(3)(B), 22 CCR.

¹This section was previously numbered §66189.5, 22 CCR.

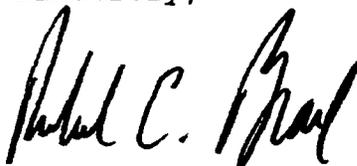
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If the lead shot was found to have disintegrated into a fine powder (defined in §66260.10 as consisting of particle sizes smaller than 100 micrometers in diameter), then based on the exclusion in subsection (b)(6), it would not be considered scrap metal. Because the lead shot would be a fine powder, the mixture of lead shot, lead powder, and soil would be subject to testing to determine whether it exhibits a characteristic of hazardous waste.

Regardless of the issue of whether the lead shot, and the soil contaminated with lead shot, is excluded from regulation as a hazardous waste, there may still be concern regarding environmental damage or impairment caused by the lead shot and soil mixture being disposed into a Class III landfill, or remaining in-place. You should contact the appropriate regional water quality control board and local agencies regarding the disposal of the contaminated soil into the Geer Road landfill. Regarding any lead shot which will remain at the site being developed, you should contact the Department's Region 1/SACRAMENTO Site Mitigation Branch [(916) 855-7720] to determine if any additional requirements are necessary to protect public health and the environment.

I hope this answers the questions you had regarding this issue. If you have any additional questions, you may contact me at the letterhead address or telephone number.

Sincerely,



Richard E. Brausch
Alternative Technology Division

cc: Mr. Ron Pilorin
Alternative Technology Division
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Mr. Danny L. Mercer

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1716 Morgan Road
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RB:rb/ba



Resource Recovery

July 12, 1991



Rick Brausch
Alternative Technologies
Department of Health Services
400 "P" Street/4th Floor
Sacramento, CA 95814

SUBJECT: SOIL CLASSIFICATION - GUN CLUB SOIL

Dear Rick:

As we have discussed, ADM Resource Recovery, Inc. is working for a client in Fremont, California who owns an old gun club which is slated for residential development. Approximately three acres of the site contains lead shot resulting from trap shooting over a twenty to thirty year period. It is estimated that the top 12 to 18 inches of soil in the 3-acre affected area contains an average of 4000 to 7000 mgs of elemental lead shot per kilogram of soil.

Studies by the United States Geological Survey (1) show that both metallic lead and the common lead minerals are nearly insoluble in pure water. The result is that lead is virtually immobile through soil and water under neutral or alkaline conditions. Consequently, there are no potential environmental threats from leaving the soil in place. There is, however, a potential human health threat. The concern is the potential for young children to ingest the small pieces of lead shot in much the same way they are known to ingest lead-bearing paint chips.

Researchers investigating landfill deposition and movement of lead have concluded that lead is essentially immobile in landfill settings (2,3,4). Thus, there are no potential environmental threats from using the soil in landfill closure operations.

The two goals which ADM Resource Recovery, Inc. are trying to accomplish are:

1. Relocate the soils to a site where the potential for human exposure is greatly reduced, and
2. Use the soils for a beneficial purpose.

The Geer Road landfill in Stanislaus County is currently undergoing site closure. To complete the closure, Stanislaus County needs to import up to 250,000 cubic yards of soil at a cost of over \$1 million. Using the soil from the gun club in the closure of the Geer Road landfill accomplishes both of the goals stated above. That is, the potential

Rick Brausch
Department of Health Services
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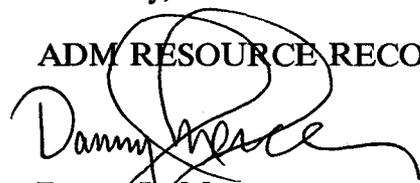
for human exposure to the lead shot containing soils is eliminated, and Stanislaus County saves up to \$45,000 in purchased soil for closure of the landfill.

Before accepting the gun club soil, Stanislaus County must be assured there are no Department of Health Services regulations which preclude the use of the soil during the Geer Road landfill closure. The important questions appear to be:

1. Does the lead shot containing soil fall under the scrap metal exclusion in Section 66804 of Title 22 of the California Code of Regulations?
2. If the answer to Question 1 is yes, what DHS requirements (if any) are applicable to use of this soil during landfill closure?

Sincerely,

ADM RESOURCE RECOVERY, INC.



Danny L. Mercer

DLM\sp

cc: Jerry Irons
Stanislaus County Public Works

Gail Wiggett
RWQCB

Jim Simpson
Stanislaus County DER

REFERENCES

1. Lead in the Environment, T. G. Lovering (Ed.), Geological Survey Professional Paper 957, United States Government Printing Office, Washington, D. C. (1976).
 2. Vogl, E., and Angino, E. "Chemical Effects of Selected Trace-metals from Landfill Leachates on Groundwater Quality," Haz. Waste Haz. Mat. 2(2):159-175(1985).
 3. Griffin, R. et. al., "Attenuation of Pollutants in Municipal Landfill Leachate by Clay Minerals: Part 1 - Column Leaching and Field Verification," Environmental Geology Notes, No. 78, Illinois Geological Survey, Urbana (1976).
 4. Young, P. Baldwin G., and Wilson D., "Attenuation of Heavy Metals Within Municipal Landfill Sites," Hazardous and Industrial Waste Management and Testing: Third Symposium, ASTM STP 851. Jackson, L., Rohlik, A., and Conway, R. (Ed), American Society for Testing and Materials, Philadelphia (1984).
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