January 28, 1997

MEMORANDUM

TO: Anita Cummings

FROM: Howard Finkel

SUBJECT: Transferability of UTS to Mineral Processing Wastes

As discussed below, the transferability of the universal treatment standards to mineral processing wastes is well supported because the derivation of the newest treatment standards were based on the selection of the highest treatment level calculated using (1) treatment data obtained from INMETCO and (2) treatment data obtained from both Rollins Environmental and GNB.

Specifically, as shown in Exhibit 1, the majority of the waste streams comprising the Rollins Environmental and GNB database were derived from facilities involved in either primary or secondary mineral processing (21 of 31; 68%). The remaining waste streams were produced by facilities that generated metal-bearing remediation wastes (3 of 31; 9.6%), metal manufacturing wastes (3 of 31; 9.6%), foundry wastes (2 of 31; 6.4%), and spent metallic wastes (2 of 31; 6.4%).

EXHIBIT 1

Rollins Environmental and GNB Treatment Data - Waste Stream Identifiers

Waste Stream Identifier	Type of Waste	Waste Stream Description	Primary Constituents (pH, RAW TCLPs - mg/L)
WP-1672	Remediation	Baghouse Dust (Sprayed and Dried) From Incinerator	pH=7.5, Pb - 3.0
WP-1731	Mineral Processing	Cadmium Sponge Residue	pH=11, Cd-4090, Pb-13, Zn-430
WP-1772	Foundry	Grey Iron Cupola Melting Waste	pH=6.25, Pb-114
WP-6458	2° Mineral Processing	Lead Slag Waste	pH=10, all metals <1
WP-6766	Foundry	Baghouse Dust Waste	pH=6.8, Cd-11.7, Pb-338
WP-6795	Mineral Processing	Cupels From Fire Assay Laboratory	pH=10.3, Pb-4430
WP-6797	Mineral Processing	Crucibles From Fire Assay Laboratory	pH=7.5, Pb-77.2
WP-6798	Mineral Processing	Slag From Fire Assay Laboratory	pH=11.7, Pb-8.67
WP-6969	Mineral Processing	Soils and Debris With Sulfuric Acid	pH=2, Pb-18.8
WP-7124	2° Mineral Processing	Lead-Bearing Assay Laboratory Wastes	pH=11, Pb-900
WP-7280	2° Mineral Processing	Lead Contaminated Wastes, Cupels, and Debris	pH=11.3, Pb-1280
WP-7393	Mineral Processing	Blast Furnace Slag	pH=10.23, Ba-13.5, Pb-50.7
WP-7397	2° Mineral Processing	Blast Furnace Slag	pH=10.23, Ba-13.5, Pb-50.7

EXHIBIT 2 (Continued)

Waste Stream Identifier	Type of Waste	Waste Stream Description	Primary Constituents (pH, RAW TCLPs - mg/L)
WP-8036	Spent Metallic Products	Lead Aprons	pH=5.2, Pb-783
WP-10073	Metal Manufacturing	Bottom Concentrated Plating Tank Sludge	pH=4.0, Cr-284
WP-10076	Metal Manufacturing	Chromium Contaminated Sand and Dirt	pH=2.81, Cr-317
WP-10078	2° Mineral Processing	Lead Recycling By-Products	pH=9.7, Pb-2690
WP-10081	Metal Manufacturing	Porous Pot Solids	pH=8.76, Sb-16.1, Cr-1580
WP-11262	Remediation Waste	Chromium Contaminated Soils	pH=8.79, Cr-40.6
WP-11504	Spent Metallic Products	Lead Oxide Catalyst Waste	pH=6.54, Pb-1400
WP-12111	2° Mineral Processing	Lead Contaminated Soils	pH=7.31, Pb-246
WP-12651	Mineral Processing	Baghouse Dust Waste	pH=7.04, Cd-13, Pb-220, Zn-3100
WP-12967	Remediation Waste	Lead Contaminated Surface Soil	pH=8.11, Pb-390, Zn-44.2
WP-13041	Mineral Processing	Lead/Lead Bromide Residue	pH=8.95, Pb-1900
WP-14700	Mineral Processing	Gold Ore Leach Tailings	pH=9.06, As-33.1
GNB-1 - GNB-6	2° Mineral Processing	Lead Battery Recycling Slag Waste	Ba-32, Pb-898 (Pb Total - 4.6%)

Therefore, as a result of the new UTS levels being based on the highest of either the INMETCO treatment data or the Rollins/GNB treatment data (which were predominantly based on the treatment of mineral processing wastes), the new UTS levels are thoroughly transferable to mineral processing wastes.

If you have any questions, please call me at (703) 934-3656.