Illinois Environmental Protection Agency P.O. Box [illegible] Springfield, IL [illegible]

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217/782-6760

Refer to: L1190400007 -- Madison County
Taracorp/NL Industries

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July 23, 1991

Thomas Long
Division of Environmental Health
Office of Health Protection
Department of Public Health
525 West Jefferson, Floor 3
Springfield, Illinois 62761

Dear Mr. Long:

As requested by your contractor, Renate Kimbrough, on July 10, 1991, I have the following information:

1. For ages of houses in the Madison County area you may wish to contact the following agencies:

   a. Robert L. Pinkerton, Executive Director
      Southwestern Illinois Planning Commission
      203 West Main Street
      Collinsville, Illinois 62234
      618/344-4250

   b. Bill Grogan, Planning Director
      East-West Gateway Coordinating Council
      911 Washington Avenue
      St. Louis, Missouri 63101
      314/421-4220

   c. James K. Monday, Director
      Administration
      Madison County Courthouse
      Edwardsville, Illinois 62025
      618/692-6200 ext. 4341

2. The USEPA mailing list can be obtained from:

   a. Brad Bradley
      Remedial Project Manager (5HS-11)
      USEPA/Region 5
      230 South Dearborn
      Chicago, Illinois 60604
      312/886-4742

3. Lead pipe removal program

   A national/state lead monitoring program for drinking water is being established. When the monitoring program is established, Dorothy Bennett will probably be the contact person. Her mailing address is:

a. Dorothy Bennett, Chemist
Division of Public Water Supplies
Illinois EPA
1340 North Ninth Street #13
Post Office Box 19276
Springfield, Illinois 62794
217/782-1020

There is no State program for the removal of lead pipes. Mr. Steven Sears (Design Engineer for Illinois American Water Corporation 618/236-1180) is a private contractor assisting the local and private sectors to meet the new lead standards in drinking water.

4. For information on the drinking water quality in the area, you should contact:

a. Janet Dooley
Division of Public Water Supplies
Illinois EPA
1340 North Ninth Street #13
Post Office Box 19276
Springfield, Illinois 62794
217/782-1020

5. For information on the soil type and composition in Granite City, Madison, Venice, and Pontoon Beach, you could contact:

a. Bob McClese
Soil and Water Conservation District
Champaign, Illinois
217/398-5286

b. Dr. John J. Hassert
Department of Agronomy -- Soils
University of Illinois
Champaign, Illinois
217/333-9472

I hope the above information helps you in your health study.

Sincerely,

Shirley Baer

Shirley H. Baer, Project Manager
Federal Site Management Unit
Remedial Project Management Section
Division of Land Pollution Control

SHB:jk/2214q,19-20

cc: Division File
[redacted]

4.4.2 Soil Sampling

In addition to the waste piles, four locations were selected for soil sampling. The objective of the soil sampling was to determine if surface soils were contaminated at the site. The soil samples were analyzed for the same parameters as the waste pile samples. At each sampling location two samples were collected - a surface sample (0"-2" depth) and a near-surface sample (6" - 8" depth) (see Appendix G for sampling procedure). The upper samples were designated SS-1 through SS-4. The lower samples were designated SS-1-Sub through SS-4-Sub. SS-3 and SS-4 are located near the waste piles while SS-1 and SS-2 are far away for the piles (see Figure 3). The analytical results are summarized in Tables 6 and 7. The findings of the soil sampling can be summarized as follows:

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(1) Based on the results of the inorganic and organic analyses of samples collected from the site, the only contaminant of concern in any of the soil samples was lead.

(2) The total lead content of the surface soil samples (0" - 2") varied from approximately 1070 ppm (SS-1, near the SE corner of the site) to 9560 ppm (SS-2, near the SW corner of the site). The total lead content of the near-surface soil samples (6" - 8") varied from 57.5 ppm (SS1-sub, near the SE corner of the site) to 28,100 ppm (SS2-sub, near the NE corner of the site). (See Figure 3 for location.)

(3) Leachable lead (EP Tox) in the surface soil samples (0" - 2") varied from approximately 0.412 ppm (SS-1, near the SE corner of the site) to 9.15 ppm (SS-2, near the NE corner of the site). Leachable lead (EP Tox) in the near-surface soil samples (6" - 8") varied from less than 0.066 ppm (SS-1 sub, near the SE corner of the site) to 74 ppm (SS2 sub, near the NE corner of the site).

(4) A layer of broken battery casings and fist-sized pieces of slag was encountered during the collection of the SS-2 Subsoil sample. The high total and leachable lead concentrations found at SS-2 are probably a result of the presence of these materials. These materials were not related to SLLR activities according to personal communication with Mr. Jim Stack, SLLR.

(5) Except for the 9560 ppm value in the surface soil, the lead concentrations in the surface soil at the site are comparable to those values found within a quarter-mile radius of the former secondary lead smelter (O'Brien and Gere, 1988). The latter values ranged from 514 ppm to 4150 ppm.

4.4.3 Exploratory Excavations

After the broken battery casing and slag pieces were found in the SS-2 hole it was decided to dig several trenches or excavations at various locations around the site to determine the extent of these layers. On September 9, 1989 trenches were excavated by backhoe at various four (4) locations around the site. These excavations were designated

EX-1 through EX-4. EX-1 was placed next to the soil sampling location SS-2, where the battery casing material was encountered. The remaining three excavations where located between the SE corner of the property and the battery chip pile. The locations of the excavations are shown on the Topographic Site Map in Figure 3.

The excavation at EX-1, as was expected, encountered the battery casing and slag layers. The broken battery casing pieces, some up to six inches across, and pieces of grid lead were found in a layer four inches deep and 14 inches thick. The slag, up to eight inches in diameter, was found in a layer 18 inches thick just beneath the battery casing layer. A layer of grey clay referred to locally as "gumbo" was encountered at 44 inches. Its thickness extended beyond the depth of the four-foot excavation. Samples of each layer were collected for later analysis of lead content using the same procedure described in Appendix G.

No battery casing or slag pieces were found in the other excavations, EX-2 through EX-4 (see Figures 9A and 9B for excavation logs). Although a layer of what may be "core sand," sand used in steel castings, was present in each of the remaining excavations. The clay was encountered at only 12 inches to 16 inches.

Because of the limited number of trenches that were dug, additional borings or excavations are needed to determine the extent of the battery casing and slag layers. determined.

The analytical results of the excavation sampling are summarized in Table 8. The findings of the excavation sampling can be summarized as follows:

(1) Elevated lead concentrations were found at all four (4) excavation locations. The highest value was in the battery casing layer (57,400 ppm) in excavation EX-1 near the boundary with the Taracorp property.

(2) Lead concentration generally decreases with depth with the exception of EX-1 and EX-3 where the highest readings were at a depth of 12 inches.

(3) The lowest lead concentrations in EX-3 and EX-4 were found in the clay layer. All clay lead contents were at or below 50 ppm. Vertical movement of lead through the soil column appears to be retarded by the fill sediments and the clay layer.

4.4.4 Justification for Closure in a Manner Consistent with the National Contingency Plan ("NCP")

The rubber chip and slag/matte waste piles together with any soil contaminated by these piles will be closed in a manner consistent with the remedy selected for the Taracorp/NL Industries Superfund site adjoining the Trust 454 property. The Record of Decision for the Taracorp/NL Industries site is expected in early 1990. The postponement of closure in order to remedy the rubber chip and slag/matte piles consistent with the NCP is based on the following reasons:

(1) SLLR has been orally notified by USEPA that they are a PRP at the Taracorp/NL Industries Superfund site. In December 1989, SLLR received official notice of its PRP status in a Section 104 Notice Letter pursuant to