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CERRO COPPER PRODUCTS COMPANY RESPONSE TO AREA I INFORMATION REQUESTS

Preliminary Statement

Cerro Copper Products Co. ("Cerro") provides the following information in response to United States Environmental Protection Agency's request dated July 13, 1994 and received July 18, 1994. Cerro is providing this information in furtherance of its cooperative effort to address environmental conditions in the Sauget area. These responses, however, do not constitute, and should not be construed as a waiver by Cerro of any objections it might have to these requests or any future such requests. In addition, neither the submission of these responses or documents, or the information contained within them, shall constitute or be misconstrued as an admission of law or fact by Cerro.

Cerro has provided those documents responsive to Sauget Sites Area 1 - Site G in Cerro's submittal of August 26, 1994. Other than the minor portion of Site G (1 acre) for which Cerro has responded, Cerro is limiting its response to Sauget Sites Area 1 - Site I and Dead Creek Segment A, as Cerro has no knowledge or information suggesting a direct connection between its operations and any of the other Area 1 Sites.

Request 1

Identify all persons consulted in the preparation of the answers to these information requests.

Answer 1

Below is a listing of those persons Cerro consulted in preparation of this information request:

a) Joseph Grana, current Manager of Environmental, Energy and Health Services Group.
b) Paul Tandler, former Vice President, currently retired.
c) Dave Durham, current Purchasing Manager.
d) Robert Conreaux, current Vice President of Manufacturing.
e) James Matcuk, current Vice President.
f) Dave Cornell, current Senior Project Engineer.
g) Bob Claywell, current Senior Project Engineer.

Request 2

Identify all documents consulted, examined, or referred to in the preparation of the answers to these Requests, and provide copies of all such documents, clearly indicating on each document the question(s) to which it is responsive.

Answer 2

Cerro is either producing with this response those documents responsive to the Requests or has identified such documents by reference to the alpha-numeric system and descriptions in the indices provided to the Agency on August 26, 1994. Cerro will provide copies of those documents requested by the Agency.

Request 3

If you have reason to believe that there may be persons able to provide a more detailed or complete response to any Information Request or who may be able to provide additional responsive documents, identify such persons.

Answer 3

Cerro believes that since the Site I landfill was once owned and operated by Leo Sauget, the heirs of Leo Sauget could provide a more complete response to some of this Information Request.

Request 4

List the EPA Identification Numbers of the Respondent

Answer 4

Cerro's EPA Identification Number is ILD080018914.

Request 5

Identify all persons having knowledge or information about the generation, transportation, treatment, disposal or other handling of hazardous materials at the Site or at your facility, particularly those who worked for Cerro during the period prior to 1967.

Answer 5

Joseph M. Grana and Joe D. Burroughs could have knowledge or information in response to this question after 1989.

Paul Tandler and Sandy Silverstein could have knowledge or information in response to this question for periods prior to 1967.

Request 6

Identify and describe the acts or omissions of any persons, including your employees, contractors, or agents that caused or may have caused the release or threat of release of hazardous materials from the facility, as well as any damages resulting therefrom.

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Answer 6

Cerro does not maintain specific records of events which may have caused releases of hazardous materials from the facility, but acknowledges that its process wastewater, sanitary wastewater, cooling water and stormwater runoff, some of which contained hazardous substances, was released into Dead Creek Segment A during the operation of its facility since 1927. Cerro wastewater documents that may be responsive to this request can be found at documents numbered C328-C1332, C1536-C1655, C3311-C3733 and C4888-C7763.

Cerro deposited on Site I internally generated construction debris, broken concrete, blast furnace slag, excess dirt from excavation within the plant, used furnace brick, cooling system solids and similar rubble, some of which may have contained hazardous substances. Because these materials were internally generated and disposed of on company-owned land, there are no shipping documents.

Request 7

Identify all persons, including yourself, who have arranged or may have arranged for disposal or treatment, or for the transportation for disposal or treatment, of hazardous materials or to the Site, with particulate attention to persons who performed these duties prior to 1967. In addition, identify the following:

a) The person(s) with whom you or such other person(s) made such arrangements;

b) Each date on which such arrangements took place;

c) For each transaction, the nature or the material, including the chemical content, characteristics, physical state (e.g., soil, liquid), and the process for which the hazardous material was used or the process which generated the material;

d) The owner of the material so accepted or transported;

e) The quantity of the materials involved (weight or volume) in each transaction and the total quantity for all transaction;

f) All tests, analysis, and analytical results concerning the materials;

g) The person(s) who selected the Site as the place to which the materials were to be transported;

h) The amount paid in connection with each transaction, the method of payment, and the identity of the person from whom payment was received;

i) Where the person identified in g., above, intended to have such materials transported and all evidence of this intent;

j) Whether the materials involved in each transaction were transshipped through, or were stored or held at, any intermediate site prior to final treatment or disposal;

k) What was actually done to the materials once they were brought to the Site;

l) The final disposition of each of the materials involved in such transactions;

m) The measures taken by you to determine the actual methods, means. and site of treatment or disposal of the material involved in each transaction.

n) The type and number of containers in which the materials were contained when they accepted for transport, and subsequently until they were deposited at the Site and all markings on such containers;

o) The price paid for (i) transport (ii) disposal or (iii) both of each material.

p) Copies of all documents containing information responsive to a - o above.

q) All persons with knowledge, information, or documents responsive to a - o above.

Answer 7

Due to the fact that the period in question, pre-1967, is over twenty five years ago, Cerro does not know who would have arranged for transport of hazardous materials to Site I. However, Cerro offers its responses to an August 7, 1989 Request for Information, Sauget Sites Area I & II dated October 10, 1989, in response to this Request 7, as it applies to Site I.

Prior to construction of a process wastewater interceptor sewer in 1965, portions of Cerro's process wastewater, sanitary wastewater, cooling water and stormwater flowed to Dead Creek Segment A. From there, Cerro's discharge generally flowed north into a 36" pipe that went from the northern end of Dead Creek under the Alton & Southern Railroad tracks and connected with a 24" Village sewer line that ran along the southern side of Monsanto's property. Cerro wastewater information for the period prior to the construction of the interceptor sewer can be found in documents numbered C02667-C02717 and VS0533-VS0539. In 1965 the Village constructed an interceptor sewer that collected Cerro's process discharges and pumped them through a junction box that was constructed at the northern terminus of Dead Creek, through the 36" pipeline and into the Village sewers.

This 36" line connected the Village sewers to Dead Creek as early as the 1940s. When the Village sewer system became surcharged with a heavy volume of wastewater or stormwater, the wastewater would backflow from the 24" Village line

through the 36" line into Dead Creek. When this backflow occurred, wastewater from other dischargers into the Village sewers in the area, the largest of which was Monsanto, entered Dead Creek. In addition, in these surcharge situations, Cerro's discharge was prevented from entering the Village sewer system, and instead, backed up into Dead Creek. Cerro is providing wastewater analysis typical of its discharge which would have been prevented from entering the Village sewer system after 1965 in documents C00311, C00328-C00435, C00957-C01332, C03299 and VS0541-VS0547 as shown in the August 26, 1994 document indices.

Request 8

Provide a detailed listing of products, including by-products, manufactured or produced at the facility for the time period between 1900 and 1982.

Answer 8

The following products and by-products were produced by Cerro:

a) Electrolytic copper cathode
b) Copper and brass ingot bars
c) Copper and brass billets
d) Copper and brass tube and pipe
e) Lead-tin solder string and bars
f) Zinc oxide baghouse dust (by-product)
g) Silver chloride salt (by-product)
h) Lead-tin refinery slimes (by-product)
i) Copper bearing reverberatory furnace slag (by-product)
j) Copper and lead blast furnace slags (by-product)

Request 9

Describe the manufacturing and recycling processes for the products that were manufactured at the facility during the time period.

Answer 9

The following are descriptions of past and present the manufacturing processes:

a) Sintering Operations (abandoned in the 1950's) - Processes used prior to blast furnace smelting to agglomerate dried lead-tin slimes (refinery by-product) or copper bearing fines into a "clinker" cake to avoid its being blown out of the blast furnace combustion chamber. The material is blended on a pallet conveyer, ignited with overhead burners, and air is blown upwards through the mixture of metal bearing charge materials, finely crushed coke and fluxes. The agglomerated material is discharged at the end of the conveyer, cooled and transferred to the respective blast furnace operations.

b) Copper Blast Furnace Operations (abandoned in 1960's) - The process was utilized to reduce reverberatory slags and other copper bearing materials containing low concentrations (20% - 30%) of cooper and its alloys to a more concentrated form. A tall

water cooled column is loaded alternately with coke (the fuel), copper bearing materials (the charge), and limestone (the flux). Blower air is injected through a set of tuyeres located in the lower portion of the column, thus combining chemically with the coke to form reducing gases that permeate through the charge, melting it, and reducing oxygen containing materials to a metallic form. The crucible below the furnace column is tapped for slag off the top of the molten bath, while the metallics, called "black copper" are tapped from, the bottom of the crucible into iron molds, and allowed to cool before transfer to the anode furnace operation.

c) Lead Blast Furnace Operations (abandoned in 1950's) - The process was utilized to convert dried and agglomerated by-products of the refinery (slimes) to metallic form, containing primarily lead and tin. The process is similar to the Copper Blast Furnace operation described above, except for the composition of the charge. The metallics tapped from the furnace crucible are collected in heated vessels (open pots under fume hoods) before blending to desired lead-tin alloys, then poured into water cooled molds for solidification and further processing into marketable products.

d) Copper Anode Fire Refining Furnace Operation - The fire refining process involves the removal of impurities from a high grade scrap copper (#2 copper). The molten copper is refined by blowing air into the molten bath which is called oxidation. The oxides of the impurities form a slag which is then removed by skimming the furnace. After the slag is removed the refined copper is deoxidized with green wood poles being pushed into the bath. Once the oxygen content meets specifications the copper is cast into anodes for further refining in the Electrolytic Refinery.

e) Electrolytic Copper Refining - The electrolytic copper refining process description can be found on page 84 - 86 of the deposition of Mr. Paul Tandler dated June 7, 1994.

f) Tankhouse Slimes processing and Drying - The slimes processing description can be found on page 152 and 153 of the deposition of Mr. Paul Tandler dated June 7, 1994.

g) Billet casting Operations - The billet casting operation is the process of melting copper or brass (past operation) and pouring it into water-cooled molds of various diameters, producing a solid pole called, a log. Once cooled the logs are sawed into 25 inch long billets.

h) Seamless Copper & Copper Alloy Tube & Pipe Production - To manufacture seamless tube and pipe, a billet is transferred to either a piercing mill or extrusion press. In the case of the extrusion press the metal is heated and place in the press. The forward motion of the press then pierces the billet with a mandrel and is then squeezed with 6,000 tons of pressure through a die. The result is a long shell which immediately enters a water trough thus cooling it. The shell is then transferred to bull blocks which draw down (reduce the diameter and wall thickness) of the shell. Once the tube is drawn to the specified size it is sent to straightening machines or recoilers. Finish tube is cut to length and in some cases cleaned to specification as required. The piercing mill process differs from extrusion by taking the heated billet and rotating it between two rolls while a revolving mandrel is piercing its center into a shell shape. Following piercing, the tube is then cooled, pickled, drawn down to the desired size, and formed into straight lengths or coils.

i) Solder Bar, Cake and String Production (abandoned in the 1950s) - The solder bar is when a properly blended lead-tin alloy is poured into open molds, water cooled from

below. The small bar or cake of solder is used in the plumbing industry for "leaded" cast iron soil pipe joints or similar end uses. The solder string product was commonly used in solder joints of copper tubing and various fittings and valves used in plumbing systems. It is manufactured when small diameter billets are cast from properly blended lead-tin alloy from the Lead Blast Furnace. The billets are cold extruded in a vertical press to produce the string solder, by forcing the metal through a die with a number of apertures, depending on how many strands are to be produced simultaneously. The emerging strands are coiled and then spooled to various weight packages for the end user.

Request 10

Identify the raw materials (e.g. scrap copper, copper wire, copper solutions, etc.) received, and the chemical additives and catalysts (both organic and inorganic) used to produce finished products at the facility.

Answer 10

The following is a list of raw materials used to produce a finished product at Cerro. Scrap brass and bronze (pre-1960), Grades 1, 2, & Light scrap copper, copper cathode, copper ingot and wire bar, blister copper, 85-15 phos copper cake & pellets, irony breakage, coke, limestone, sand, sulphuric acid, hydrochloric acid, nitric acid, hydrogen peroxide, glue, acetone, stripping solution, lubricants (petroleum & synthetic products), chlorinated solvents, carbon beads, graphite, charcoal, refractory materials, kerosene, gasoline, diesel fuel, oxygen, hydrogen, nitrogen, propane and natural gas. Material Safety Data Sheets are found in document numbered C01985-C01987 and C01333-C01404 as shown in the indices submitted August 26, 1994.

Request 11

Did Cerro or any of its predecessors (e.g. Cerro DiPasco, Lewin Metals, etc.) accept transformers at this facility for the purposes of recycling or recovering copper from the copper cores? How were waste oils from the transformers handled and disposed of?

Answer 11

After diligent inquiry, Cerro does not have documents, information or knowledge that it received or accepted transformers at this facility for the purposes of recycling.

Request 12

List the specific types of organic or inorganic substances used or generated at the facility up until 1982, along with the specific time periods in which each was used or generated.

a. Provide the weight and/or volume of the total amount of each organic and inorganic substance used or generated at the facility.

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b. Describe the nature of the substance, including the chemical content, characteristics, physical state (e.g., solid, liquid), and;

c. Describe the process for which the substance was used or the process which generated the substance.

Answer 12

Without exhaustive effort and considerable time, Cerro cannot give detailed information regarding Request 12. Material Safety Data Sheets for materials used at Cerro can be found in documents numbered C01985-C01987 and C01333-C01404 as shown in the indices submitted August 26, 1994. Cerro raw material purchases are documented in "repeater cards" same of which are identified in the indices produced on August 26, 1994 as document numbers C02918-C02919, C02922, C02924-C02929, and C03089-C03174 and others of which were not referenced in such indices but which will be made available at a mutually convenient time. Cerro request the Agency be more specific in its request in order for Cerro to more fully comply with this request.

Request 13

How were contaminated soil, contaminated clothing/protective gear. and laboratory wastes handled and disposed of by the facility? Were these items commingled with waste products before disposal?

Answer 13

Prior to 1990, Cerro used Site I for the disposal of soils excavated on its property. It was not Cerro's practice to test materials deposited on Site I. Following 1990, soils excavated for construction of facilities were tested for contamination, and off-site disposal was determined based on the analysis. Soils deemed contaminated were disposed of in appropriate landfills.

Clothing used by manufacturing employees are sent to an industrial laundry. Protective gear such as gloves, boots and respirators are commingled with general factory trash.

Laboratory waste generated in Cerro's lab are either disposed of in the facility sewage system or through a lab pack disposal method.

Contaminated soil, clothing/protective gear and laboratory wastes from the removal action at Dead Creek Segment A were disposed of in one of the permitted landfills owned by Chemical Waste Management in Emelle AL, Lake Charles, LA or Calumet City, IL. These wastes were shipped with the contaminated soil which included its waste code. Additionally a final drum of PPE was shipped separately. Any lab waste not returned was disposed of by the lab, Gulf Coast Weston or Environmetrics.

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Request 14

Describe the methods used at this facility to handle process wastewater and sanitary discharges prior to the facility hooking up to the Village of Monsanto's sewer system. When did the facility hook up to this system?

Answer 14

It is unknown exactly when wastewater containing portion of the plant's process and sanitary wastewater first flowed into Dead Creek Segment A but it may have been as early as 1928. Prior to 1965 portions of Cerro's process wastewater, sanitary wastewater and stormwater flowed to Dead Creek Segment A. In 1965, portions of Cerro's process wastewater and sanitary wastewater was hooked up into the Village of Monsanto's sewer system.

A detailed discussion of the Village sewer system can be found in a report dated September 1994 titled "Report on Investigations of Use of Dead Creek as a Surge Pond for the Village of Sauget Sewer System" by George M. Sallwasser of Horner & Shifrin, Inc. This report is attached as Exhibit A.

Request 15

Prior to the construction of the Village of Monsanto's sewer system, was it a practice of Cerro Copper or its predecessors (or other industries in the Village of Monsanto) to discharge process wastewaters, sanitary discharges, and/or liquid chemical wastes directly in Dead Creek? If so, describe the nature, volume, frequency, and cause of such discharges.

Answer 15

Prior to construction of a process waste interceptor sewer in 1965, portions of Cerro's process wastewater, sanitary wastewater, and stormwater flowed to Dead Creek Segment A. Additionally portions of the Village of Monsanto's industries also flowed into Dead Creek. A detailed discussion of the Village sewer system can be found in a report dated September 1994 titled "Report on Investigations of Use of Dead Creek as a Surge Pond for the Village of Sauget Sewer System" by George M. Sallwasser of Horner & Shifrin, Inc.

Specific wastewater information and analysis for the period prior to the construction of the interceptor sewer for Cerro can be found in documents numbered C02667-C02717 and VS0533-VS0539 as shown in the indices submitted by Cerro on August 26, 1994.

Request 16

Were any sanitary or process wastewaters discharged to Dead Creek after the construction of the Village of Monsanto's sewer system? If so, describe the nature, volume, frequency, and cause of such discharges.

Answer 16

Following the construction of the Village of Monsanto sewer system, when the Village sewer system became surcharged with a heavy volume of wastewater or stormwater, the wastewater would backflow into Dead Creek not allowing Cerro's discharge to enter the Village sewer system. Dead Creek served as a surge pond for the Village sewer system when it became surcharged during periods of moderate rainfall or heavy industrial discharges into the system. A detailed discussion of the Village sewer system can be found in a report dated September 1994 titled "Report on Investigations of Use of Dead Creek as a Surge Pond for the Village of Sauget Sewer System" by George M. Sallwasser of Horner & Shifrin, Inc.

Cerro is providing wastewater analysis typical of its discharge which would have be prevented from entering the Village sewer system during a surcharge event. This wastewater sampling and analysis information is found in documents C00311, C00328 - C00435, C00957 - C01332, C03299 and VS0541 - VS0547 as shown in the indices submitted by Cerro on August 26, 1994.

Request 17

Describe the methods used by Cerro Copper and its predecessors to dispose of solid waste generated from its furnaces at the facility. Were these solid waste materials used as cover material at Sites G, H, I and L in Sauget Area 1?

Answer 17

After diligent inquiry Cerro has discovered no information or documents and has no knowledge that suggests that solid waste generated from its furnaces was disposed of in Sites G, H or L. Solid waste generated from its furnaces was disposed of as fill in Site I and other low areas of Cerro's plant. These solid wastes consisted of blast furnace slags and used refractory brick which were internally generated.

Request 18

Describe the nature, characteristics and constituents present in the blast furnace slag and furnace brick which Cerro deposited in sites located within Sauget Area 2, Include all Material Safety Data Sheets for these materials and all analysis regarding their metals and/or hazardous substances content.

Answer 18

After diligent inquiry Cerro has discovered no information or documents and has no knowledge of the exact nature, characteristics and constituents present in blast furnace slags but can suppose that it contained various quantities of metallics. Cerro's limited knowledge is based on the fact that its lead blast furnace was shut down in 1951 or 1952 and its copper blast furnace was shut down in 1969. Cerro is providing information

and analysis in Exhibit B on refractories currently in use which should not be substantially different from previously used refractory materials. Material Safety Data Sheets are found in the indices provided on August 26, 1994 under document numbers C01985-C01987.

Request 19

Provide all information and/or documents (other than property title information) supporting Cerro's listing of each "Possible Potentially Responsible Parties" in its correspondence to IEPA dated November 30, 1989, including any and all information concerning those parties activities in transporting waste to Area 1 sites via waste disposal contractors.

Answer 19

Cerro produced this information with its August 26, 1994 production to the Agency.

Request 20

Provide all RCRA Section 103(c) "Notification of Hazardous Waste Site" forms ever completed and/or filed by Cerro for the facility.

Answer 20

Cerro has not, to the best of its information or knowledge, completed or filed any such notification.

Request 21

In your March 28, 1990 Answer to an IEPA Information Request, you state in Answer 1 that process wastewater "may have contained metals as well as nonmetallics such as chlorides and calcium". Provide a specific list of metals and nonmetallics referenced in the Answer based on information in your possession or on the type of process operations which were occurring at the Cerro facility during this time frame.

Answer 21

Based on the knowledge of the operating facilities and wastewater sampling data, Cerro believes the following substances could have been found in Cerro's wastewater: calcium, cadmium, chlorides, chromium, copper, iron, lead, methylene chloride, nickel, selenium, silver, sulfates, tellurium, tin, thallium, trichloroethane, trichloroethene, zinc and mineral & synthetic lubricants and oils.

Furthermore, since Cerro dealt with scrap metals, it cannot discount the possibility that the following substances may have been present in small quantities in the wastewater: aluminum, antimony, arsenic, barium, beryllium, boron, cobalt, manganese, mercury and vanadium. Finally, groundwater infiltration into Cerro's sewers may have contributed various contaminants to Cerro's process wastewater analyses.

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Request 22

There is no Request 22.

Request 23

Provide all documents and information in your possession relating to the drum incident which occurred on Cerro property on September 20, 1989, including the current status of any and all lawsuits filed as a result of this incident.

Answer 23

In Cerro's indices provided on August 26, 1994, documents numbered C01718-C01740 are responsive to this request.

The lawsuits from individuals involved in the incident are still pending.

Request 24

Were off-specification products treated as wastes at the facility? Provide information and documents concerning Cerro's treatment and disposal practice or policy concerning off-specification products.

Answer 24

Because Cerro is a fully integrated tube manufacturing operation, off-specification cathode, billets and tubing are re-melted and/or re-refined into usable product.

Request 25

As the Cerro facility evolved over the years, how has the disposal of obsolete process equipment been handled? Describe the disposition of such equipment.

Answer 25

Obsolete process equipment was sold or given to machinery or scrap dealers. Scrap metals such as stainless steel, carbon steel, cast iron, aluminum, etc was sold to scrap dealers.

Request 26

Were any hazardous materials generated or used at the facility ever disposed of on facility property? If so, describe the nature, volume and location of such wastes.

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Answer 26

In regards to Site I, Cerro disposed of internally generated construction debris, broken concrete, blast furnace slags, cooling system solids, excess dirt from excavation within the plant, furnace brick and similar rubble. Because these materials were internally generated and disposed on company-owned land, there are no shipping documents.

Aerial photographs from the fifties show that there was filling activity taking place on Cerro's plant property south of Old Queeny Rd, east of Mississippi Ave, north of New Queeny Rd and west of Dead Creek. Also there are indications of slag and brick use as fill and railroad ballast along the Alton and Southern Railroad Line on the northern border of Cerro's property.

Testimony by Paul Tandler indicated that portions Cerro's Tube Mill built in the late 1930's and early 1940's used slag as part of its foundation. Low areas were filled with slag to build up the foundation level.

Request 27

Were disposal activities referenced in Request 26, above carried out by Cerro employees or outside personnel or waste contractors? Identify all companies and individuals which carried out these activities.

Answer 27

It is believed that the disposal activities referenced in Answer 26 were performed by Cerro employees. Cerro cannot, at this time, identify those employees.

Request 28

Does Cerro disagree with the contention that at least a portion of the Sauget Area 1 sites contain wastes generated from the Cerro facility? If Cerro so disagrees, provide all information and documentation which supports this position.

Answer 28

Cerro does not disagree that portions of Sauget Area 1 Site I and Dead Creek Segment A contain wastes generated at Cerro.

Request 29

Identify all waste disposal contractors employed or used by Cerro for the period ending in 1967. Also:

a. Describe how these disposal contractors handled Cerro non-hazardous materials, including the terms of any contractual arrangements with each;

b. Describe how Cerro controlled where and how these waste disposal contractors disposed of these materials;

c. Was it Cerro's practice or policy to dictate or choose where these materials would be disposed of or did Cerro leave the disposal of the materials up to its waste disposal contractors?

Answer 29

After diligent inquiry Cerro has discovered no information or documents and has no knowledge of any waste disposal contractors employed or used by Cerro for the period ending in 1967.

Request 30

Did Cerro or any of its consultants, agents, or contractors at any time secure the services of Leo Sauget or his company (later named "Industrial Salvage & Disposal, Inc.") to process, accumulate, treat, remove, haul or dispose of any hazardous materials or fly ash generated or used at the Cerro facility? If so, describe the nature of these services, when they were rendered, and all contracts or agreements associated with these services. In particular, describe the arrangement with this company regarding where these materials and/or fly ash were to be disposed of.

Answer 30

After diligent inquiry Cerro has discovered no information or documents and has no knowledge of using Leo Sauget or his company to process, accumulate, treat, remove, haul or dispose of any hazardous materials or fly ash generated or used at the Cerro facility.

Request 31

Did Cerro or any of its consultants, agents, or contractors at any time secure the services of Paul Sauget or Sauget & Company to perform any of the services referenced in Request 30, above? If so, describe the nature of these services, when they were rendered, and all contracts or agreements associated with these services. In particular, describe the arrangement with this company regarding where Cerro wastes and/or fly ash were to be disposed of.

Answer 31

Cerro believes that Paul Sauget or Sauget & Company at one time performed work for Cerro but after inquiry has identified no documents, information or knowledge as to when or for what purpose Paul Sauget or Sauget & Company was used.

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Request 32

Did Cerro or any of its consultants, agents, or contractors at any time secure the services of Harold Waggoner or Waggoner & Company to perform any of these services referenced in Request 30, above? If so, describe the nature of these services and all contracts or agreements associated with these services. Also describe the arrangement with this company regarding where these materials and/or fly ash were to be disposed of.

Answer 32

After diligent inquiry Cerro has discovered no information or documents and has no knowledge of using Harold Waggoner or Waggoner & Company to process, accumulate, treat, remove, haul or dispose of any hazardous materials or fly ash generated or used at the Cerro facility.

Request 33

Describe how the interceptor junction structure at the north end of Dead Creek in the sewer system worked after the hook up to the Physical/Chemical plant. Identify the number of bypasses of the interceptor system which have occurred and the volume of wastewater discharged in each bypass event. Describe under what conditions the bypasses occurred, as well as nature of the wastewater discharged and the area where these wastewaters went during and after bypass events. When was this bypass point closed and what prompted its closure?

Answer 33

The concrete junction structure at the north end of Dead Creek was constructed by the Village in or about 1965 as part of the project to intercept Cerro's discharges to Dead Creek. Water was pumped from the interceptor line through a pipe that led into the southern side of the structure. This water then "shot" across the structure into the 36" line that led under the Alton & Southern tracks and into the 24" Village sewer line. The eastern and western sides of the structure consisted of metal grating, such that when the Village sewers were surcharged and backflowing south through the 36" line, this backflow as well Cerro's flow into the structure could discharge through the sides of the structure into Dead Creek. Engineering drawings of the structure can be found at documents numbered C02517 through C02525 on the indices produced August 26, 1994. A detailed discussion of the Village sewer system can be found in a report dated September 1994 titled "Report on Investigations of Use of Dead Creek as a Surge Pond for the Village of Sauget Sewer System" by George M. Sallwasser of Horner & Shifrin, Inc., attached as Exhibit A.

Request 34

Identify and describe all discharges or spills to Dead Creek from the Cerro facility before and after the Village of Monsanto's sewer system was constructed.

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Answer 34

Specific wastewater discharge information and analysis for the period prior to the construction of the interceptor sewer for Cerro can be found in documents numbered C02667-C02717 and VS0533-VS0539 as shown in the indices submitted by Cerro on August 26, 1994.

Specific wastewater discharge information and analysis for the period after the construction of the interceptor sewer for Cerro can be found in documents C00311, C00328 - C00435, C00957 - C01332, C03299 and VS0541 - VS0547 as shown in the indices submitted by Cerro on August 26, 1994.

Request 35

Identify and describe all past and present solid waste units (e.g. waste piles, landfills, surface impoundments, waste lagoons, waste ponds or pits, tanks, container storage areas, etc.) on the Cerro facility property. For each solid waste unit identified, provide the following information:

a. A map showing the unit's boundaries and the location of all known solid waste units, whether currently in operation or not. This map should be drawn to scale, if possible, and clearly indicate the location and size of all past and present units,

b. The type of unit (e.g. storage, spill containment, etc.);

c. The dates that the unit was in use;

d. The purpose and past usage (e.g. storage, spill containment, etc.);

e. The quantity and types of materials (hazardous substances and/or any other chemicals) located in each unit; and

f. The construction (materials, composition) volume, size, dates of cleaning, and condition of each unit;

g. If the unit is no longer in use, when and how such unit was closed and what actions were taken to prevent or address potential or actual releases of waste constituents from the unit?

h. A complete description of any and all releases, or spills or leaks of hazardous substances, or any materials or liquids containing or contaminated with hazardous substances, from the unit.

Answer 35

Between 1955 and 1969 Cerro purchased several parcels of land totaling approximately 17 acres, located east of its main plant property. This land was used by Cerro from that time until March 1, 1991 as a landfill for inert material, generally concrete, metallics, brick, construction and demolition debris and cooling system solids. Cerro also uses the land for the storage of its copper tube products in trailers, parking of empty trailers, concrete truck washout, storage of salvageable and usable equipment and at times a reclamation storage area for used refractory brick. It is estimated that during the 37 years Cerro has owned at least a portion of the land, Cerro has placed between 1 and 8 feet of cover over the 17 acres depending on the slope of the land. Documents related to the landfill and its closure are provided in Exhibit C. Prior to Cerro owning the property, the land was used by the previous owner as a gravel pit/landfill area. Discussions on the previous owner's activities and analysis of contamination are found in the Ecology & Environment, Inc. report prepared for the IEPA dated May, 1988. Cerro has also sampled this area in the past and has installed groundwater monitoring wells. Further information can be found in documents numbered C07937-C07992 shown in the indices submitted by Cerro on August 26, 1994.

Sauget Sites Area 1 - Dead Creek Segment A - Cerro relies on its answers to Requests 7, 14, 15, 16, and 42 in response to this Request.

Incinerator - Until 1978, Cerro operated a solid waste incinerator to incinerate factory and waste oil when it was available. The location of the incinerator is shown in Exhibit D. Air pollution permit documents are provided in Exhibit E. These documents provide the technical details and operating requirements of the unit. It is unknown when the incinerator was installed. The building that was used to house the incinerator is now used as a waste oil and hazardous waste 90-day storage area.

Waste Oil & Hazardous Waste 90-day Storage Area - As stated above the Waste Oil and Hazardous Waste 90-day storage area is located where the old incinerator once was located. Exhibit D shows the current location. Located at the storage area is one 10,000 gallon tank for waste oil not contaminated with solvents and one 1500 gallon tank for storage of solvent contaminated waste oil which is considered hazardous waste. The tankage is protected by concrete containment. There are also varying amounts of storage of waste oil in barrels and portable tanks waiting to be classified before being picked up by a waste oil hauler for either oil reclamation or fuels blending. Chlorinated solvent still bottoms and spent solvent which is generated in the manufacturing operations are also stored in the containment area. Attached as Exhibit F are past IEPA RCRA inspection reports, Cerro's responses to minor NOVs and IEPAs compliance response. The still bottoms and waste solvent are picked up by a solvent reclaimer.

Factory Trash - Cerro collects general factory trash and refuse and stores it in a bin to either be loaded into a trash compactor or dumpsters for disposal at a local landfill. The location of the trash handling operation is shown in Exhibit D.

Solvent Still Operations - Cerro currently operates a solvent still in Bldg. 80. The still reclaims dirty trichloroethylene. The solvent is recirculated into a batch tube cleaning machine in a continuous loop. Still bottoms are removed manually and placed in drums for storage in the 90-day Hazardous Waste Storage Area as discussed above. In past years the

cleaning system used 1, 1, 1- trichloroethane and methylene chloride in addition to the trichloroethylene. In the Tube Mill, Cerro operated a solvent still until 1993 when it discontinued use of 1, 1, 1-trichloroethane for continuous tube cleaning. Dirty solvent (contaminated with oil, grit and dirt) was brought from straighteners and coiler satellite storage locations in the Tube Mill and Bldg. 80 where an operator pumped the barrels into a 1500 gallon tank for processing through the still. Periodically the still bottoms were removed manually and placed in drums for storage in the 90-day Hazardous Waste Storage Area as discussed above. Cerro discontinued use of the still in the Spring of 1993 when it was cleaned and disconnected from steam and storage tankage. The still remains in its current location. Materials removed from the abandoned still were removed manually and placed in drums for storage in the 90-day Hazardous Waste Storage Area as discussed above. The commencement of still operations is unknown. The locations of the stills and related tankage are shown on Exhibit D.

<u>Main Plant Fill Operations</u> - Depositions, aerial photographs and visual observation of plant buildings indicate that landfilling of slag and cooling system solids in low areas within the boundaries of Cerro's main plant occurred in the 1930's, 1940's, 1950's, and 1960's. This activity was done to build up the property to level grade for construction of buildings, primarily the Tube Mill, Bldg. 80 and the Receiving Department building. The amount or extent of this filling activity is unknown. However aerial photographs indicate it was discontinued by 1970 when the Receiving Building construction was completed. The general location of the filling activity, which is primarily under buildings, is shown in Exhibit C.

Provide copies of all local (e.g. Village or Sauget or Monsanto) environmental permits or licenses ever granted for the Cerro facility or any part thereof.

Answer 36

Cerro is providing a copy the Village of Sauget American Bottoms Regional Wastewater Treatment Facility Wastewater Discharge Permit in Exhibit H.

Request 37

Provide the following information for chlorobenzenes, chlorophenols, chloroanilines, nitrophenols, nitroanilines, and PCBs:

a. A description of whether and, if so, how the substance is or was generated and/or used at the facilities;

b. An estimation of the quantity of the substance generated or used at the facilities;

c. A description of Cerro's storage, treatment, and/or disposal policies or practices for each substance throughout the operating history of the facility;

d. Any and all documents, reports, forms, permits or manifests indicating the substance's transportation to and/or disposal in Sauget Area 1 sites.

000219

Answer 37

Cerro does not have documentation, information or knowledge of using chlorobenzenes, chlorophenol, chloroanilines, nitrophenols or nitroanilines in our facility. Cerro is only aware of using PCBs in its transformers and capacitors. Information relating to PCBs and electrical systems at Cerro's facility are found in documents numbered C00315, C00316, C01405-C01444, C01741, C01745-C1748, C02254, C02439 - C02495 in the August 26, 1994 indices provided.

However, Monsanto has indicated that a fire resistant hydraulic fluid Cerro used in small quantities called Pydraul would have contained PCBs. Cerro, has no first hand documentation or information regarding Pydraul's formulation.

Request 38

For each spill or discharge or release of any hazardous materials used or generated by the Cerro facility, including chlorobenzenes, chlorophenols, chloroanilines, nitrophenols, nitroanilines and PCBs, provide the following information:

a. Source of spill, discharge or release;

b. Concentration of the source;

c. Location of spill, discharge or release;

d. Type of material onto which spill or discharge occurred;

e. Area over which spill or discharge occurred;

f. Date of the spill or discharge;

g. Summary of any test results from area where spill or discharge occurred;

h. Diagram or map of spill or discharge area showing location of any sampling points;

i. Description of any cleanup activities and summary of any post cleanup verification sample results;

j. Disposition of any hazardous material from any cleanup;

k. All reports, memoranda, or analysis concerning the spill discharge or release.

000060

Answers 38

Cerro has permitted air and water pollution discharges. A map attached as Exhibit I shows the air pollution point sources and the wastewater treatment discharge locations.

Cerro has had spills typical of a non-ferrous manufacturing locations. These spills would include small quantities of oils, lubricants, cleaning solvents and electrolyte which would have been contained on the site and cleaned up or discharged to the sewer system. Due to the nature of these spills, no documentation exists.

Other than the pole drilling incident discussed in Answer 23 and routine wastewater treatment bypasses reported to the POTW, Cerro has not had a reportable spill that it is aware of. Cerro does not have documentation, information or knowledge of using chlorobenzenes, chlorphenol, chloroanilines, nitrophenols or nitroanilines in our facility. Cerro is only aware of using PCBs in its transformers and capacitors.

Request 39

For each pit, pond, lagoon, settling tank, oil/water separator, water treatment unit or similar structure located at the facility, provide the following information:

a. Location and description of these areas or structures;

b. Dates of any and all cleanings or removals of any material from these areas or structures. List most recent cleanings or removals first;

c. Reason for each cleaning or removal;

d. Description of methods employed for each cleaning or removal;

e. Description of any hazardous material removed, including PCBs, and quantity of material removed;

f. Concentrations of hazardous materials removed, including PCBs, released or discharged on or off site from these areas or structures;

g. Disposition of material removed;

h. Any test data, including PCB test data, concerning these areas or structures not associated with a cleaning or removal;

i. Identification and description of any release or discharge on or off site from these areas or structures;

j. Dates when release or discharges occurred;

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k. Type of material and concentrations of releases or discharges;

l. Description of any cleanup activities for releases or discharges;

m. Summary of any post-cleanup verification sampling and disposition of material from the cleanup;

Answer 39

Settling Tanks & Water Treatment Units - Cerro has many settling tanks which are part of Cerro's wastewater treatment facilities. These facilities were permitted by the IEPA for construction and are permitted under the POTW Pretreatment Program. These locations are shown on the drawing in Exhibit I. Material is removed from these treatment facilities on a regular basis in the form of sludges which are recycled back into the Anode Furnace or reclaimed for their metal value. These facilities were constructed in 1988, 1990 and 1991. Wastewater discharges from these facilities occur daily to the Village of Sauget sewer system for further treatment. Because of the numerous sampling requirements for such wastewater treatment facilities, Cerro believes it would be best for the Agency that instead of producing copious amounts of documents, Cerro will make available for Agency review our discharge monitoring reports at the Agency's convenience.

Anode Casting Cooling Pond - As part of the Anode casting facility a cooling pond is used in the contact cooling water circuit. The location of the cooling pond is shown on Exhibit I. When Cerro was using deep well water, the amount of iron in the water caused the pond to fill with an iron sludge. The pond was drained and the sludge removed and landfilled on Cerro's property. Following the use of deep well water, the cooling water system became a closed loop system which used city water as makeup. Because the cooling water that enters this pond is in contact with the copper, copper oxides and copper particles are carried into the pond where they settle out. Also refractory based mold wash material which is sprayed on the mold as a parting agent, is carried by the cooling water into the pond and settles. Prior to the Anode facility becoming a zero wastewater discharge location in 1990, the water was drained to the sewer and the solids removed. Since 1990, a backhoe has been used to remove the copper particles. In both cases, the solids were or are placed in dumpsters next to the pond to drain and dry. After the solids are relatively dry, they are charged back into the Anode furnace because of their copper values. The cleaning takes places generally once per year. No records are kept on the dates of cleaning.

Billet Cooling System Hot & Cold Well Solids - On a periodic basis, usually annually, the hot and cold wells of the Billet Casting cooling water system require the removal of graphite solids that enter the cooling water system during casting. The location of these wells are shown on Exhibit I. This removal process requires the wells to be pumped down to the solids level. Prior to 1991, the solid slurry was pumped into a truck or removed manually and land disposed on Cerro's Site I property. After 1991, the wells were pumped down and the solids filter-pressed and sent to an off-site landfill. A copy of the solids analysis is in Exhibit J. No records are kept on the dates of cleaning and volume of solids which were land disposed.

Oil/Water Separator - **There are two oil water separators on Cerro's facility which were installed after 1990. The regulated discharge from the extrusion press operation in the Tube Mill and the East Outfall (12) both have oil separators. Their locations are shown on Exhibit I. The oil is skimmed from the surface and placed in tanks. When the tanks are full they are transported to the waste oil tanks for transfer to an oil reclaimer. The oil being separated from the wastewater is generally mineral type oil.**

Request 40

Provide a copy of any annual documents required to be kept for the facilities in accordance with 40 C.F.R. 761.180(a).

Answer 40

The Annual PCB Documents can be found in documents numbered C08594 - C08666 in the indices provided on August 26, 1994.

Request 41

Provide any information you have generated or gathered on groundwater flow and groundwater quality on or around the plants and/or on or around Sauget Area 1.

Answer 41

Responsive information can be found at the documents numbered C07937 through C07955, C277-1 through C277-11, C81-21 and C81-22 in the indices produced on August 26, 1994.

Request 42

Provide any information and documents you have generated or gathered (including documents obtained in discovery in the lawsuit captioned Cerro Copper Products Co. v. Monsanto Co., Docket No. 92-CV-204 WDS) about or in any way concerning the contamination found to exist in the Sauget Area 1, including any information concerning possible potentially responsible parties and/or the source of such contamination.

Answer 42

Cerro enclosed indices of documents that Cerro has produced to Monsanto from its own files or collected pursuant to third party subpoenas or FOIA requests in its August 26, 1994 response. As indicated in previous correspondence to the Agency, Cerro is precluded by a Protective Order from disclosing documents received from Monsanto.

Request 43

Describe all measures taken by Cerro or its consultants to characterize, measure, sample or in any way test for the presence of hazardous materials at or around Sauget Area 1. Provide the results of such testing.

Answer 43

The following document numbers in the August 26, 1994 indices are responsive to this request: C0004-C0005, C00016, C00044, C00115-C00116, C00123, C00133-C00156, C00273, C00283-C00285, C00287-C00288, C00301, C00395, C07937-C07955 and C07958-C07992.

Request 44

Provide copies of any sampling analytical reports which are responsive to any of these questions and clearly indicate on each analytical report copy of the question(s) to which it is responsive.

Answer 44

Cerro will provide copies of any sampling analytical reports which are requested by the Agency after its review of the August 26, 1994 indices provided by Cerro.

CERTIFICATION

I hereby certify that in responding to this information request, I have conducted a diligent search of current and historic company records and that I have interviewed current and past company employees. Based upon the foregoing, I further certify that the responses set forth above are true and correct to the best of my knowledge, information and belief.

Joseph M. Grana
Manger of Environmental, Energy
and Health Services Group
Cerro Copper Products Co.

Subscribed and sworn
to before me, this 12th
day of October, 1994.

Patricia Pourchot
NOTARY PUBLIC

OFFICIAL SEAL
PATRICIA POURCHOT
NOTARY PUBLIC STATE OF ILLINOIS
MY COMMISSION EXP. APR. 26,1996

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