Jay F. Young
Principal Environmental Engineer

US EPA RECORDS CENTER REGION 5
471704

VIA FACSIMILE

September 5, 1996

Mr. Richard Morton
U.S. Environmental Protection Agency
CA-29A
Region 5
Office of Regional Counsel
77 West Jackson Blvd.
Chicago, Illinois, 60604-3590

Re: Master Metals Request for Information Dated May 22, 1996

Dear Mr. Morton:

Enclosed please find NL's response to the referenced Request. As we discussed, I am sending by Federal Express the complete response with exhibits. If you have any further questions, please call me or Mr. Marcus Martin, NL's environmental counsel. Mr. Martin can be reached by telephone at 303 592 3189.

Sincerely,

Jay Young

cc: Marcus Martin, Bartlit Beck Herman Palenchar & Scott

NL Industries, Inc.
Corporate Environmental Services
P.O. Box 1090, Hightstown, N.J. 08520 Tel. (609) 443-2407
Telecopier (609) 443-2374

Response To Master Metals Request for Information
Dated May 22, 1996

Responses to EPA's Request for Information are as follows:

1. Identify all persons consulted in the preparation of the answers to these questions.

Response:

Jay Young
Principal Environmental Engineer
NL Industries, Inc.
Wyckoffs Mill Rd.
Hightstown, New Jersey 08520

Ms. Lisa Broomas
Administrative Assistant to
NL's General Counsel and Manager of File Information
NL Industries, Inc.
Houston, Texas 77210

Mr. John Hager
Dresser Industries, Inc.
Records Center
Houston, Texas 77032

2. If you have reason to believe that there may be persons able to provide a more detailed or complete response to any question or who may be able to provide additional responsive documents, identify such persons. Provide the current address and telephone number of each.

Response: None. Individuals who may be able to provide a more detailed response to these Requests are believed to be retired or no longer in the employ of NL Industries, Inc. Exhibit 1 identifies the individuals employed at the site at the time of the sale to Master Metals.

3. If applicable, list the EPA Identification Numbers of the Respondent.

Response: Not applicable.

4. Did you ever use, purchase, generate, store, treat, dispose of , or otherwise handle any materials at the Site, or transport any materials or arrange for their transport to the Site? If your answer to this question is anything but an unequivocal no, answer the following questions:

a. Identify the chemical composition, characteristics, physical state (e.g. solid, liquid), and trade or chemical name of each material.

Response: NL operated the facility from 1933 to 1979. Because no present employees are believed to have been employed at the Site, NL has no present knowledge relating to the physical plant or the day to day operation of the facility other than what can be inferred from documents discovered during the search for responsive information. The potentially responsive documents have been attached hereto as exhibits where appropriate. Exhibit 2, Notification of Hazardous Waste Site, identifies the nature of the operation and wastes handled at the site. Exhibit 3 identifies the inventory of materials stored at the site at the time of the 1979 sale of the facility.

b. State whether any of these materials were or contained hazardous substances as defined by CERCLA Section 101(14), 42 U.S.C. U9601(14);

Response: See Response 4.a., above. The materials handled at the Site contained principally metals associated with the recycling of lead-acid batteries and the refining of lead alloys.

c. Identify the person and process which generated each such material, disposed of or otherwise handled by you;

Response: See Response 4.a., above.

d. identify how each such material was used, purchased, generated, stored, treated, disposed of or otherwise handled by you;

Response: See Response 4.a., above. Materials required for facility operation were purchased from vendors or via tolling agreement . Exhibit 4, identifies contracts for the purchase of materials and services at the Site. Exhibit 5 includes tolling agreements with ESB, Globe Union and Gould, Inc.

e. state when each such materials were used, purchased, generated, stored, treated, transported, disposed of or otherwise handled by you;

Response: See Response 4.a., b., c. and d., above.

f. state where each such materials were used, purchased, generated, stored, treated, transported, disposed of or otherwise handled by you; and

Response: See Response 4.a., b., c. and d., above.

g. identify the quantity of each such materials used, purchased, generated, stored, treated, transported, disposed of or otherwise handled by you.

Response: See Response 4.a., b., c., and d., above.

5. State all times where NL Industries held an ownership interest and all times where NL Industries held an operational interest in the facility now known as Master Metals. Fully describe the nature of these interests, including each change and the date of such interest. Describe the manufacturing and maintenance processes at the facility now known as Master Metals during all times where NL Industries held an ownership or operating interest including:

a. a description of all materials purchased for use in your operation(s), including the chemical identity and chemical composition of all identified, and the supplier;

b. a description of all manufacturing processes that generated any by-products or wastes;

c. a description of all maintenance operations that generated any by-products or wastes;

d. a description of all products, by-products, and wastes generated.

Response: See Response 4.a.. Notwithstanding the aforementioned, NL had interest or ownership of the facility from 1933 to 1979. The extent of NL's ownership of the Site is described by Exhibit 6. Exhibit 7 describes the facilities and equipment which comprise the Site.

6. Have you or any other person ever accepted materials for transportation to the Site from any person or transported materials to the Site? If the answer to this question is anything but an unequivocal no, identify:

a. the persons from whom you or such other persons accepted materials for transport;

b. every date on which materials were so accepted or transported;

c. for each transaction or shipment, the nature of the materials including the chemical content, characteristics, physical state (e.g., solid or liquid), the process for which the substance was used or the process which generated the substance or weather the materials came from a construction project;

d. the owner of the materials so accepted or transported;

e. the quantity of the materials involved (weight or volume) in each transaction or shipment and the total quantity for all transactions or shipments;

f. all tests or analyses analytical results concerning each of the materials;

g. the precise location to which each material actually was transported;

h. the person(s) who selected the Site as the place to which the materials would be transported;

i. the amount paid in connection with each transaction or shipment, the method of payment, and the identity of the person from whom payment was received;

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

k. whether the materials involved in each transaction or shipment were transshipped through, or were stored or held at, any intermediate site prior to final treatment or disposal;

l. what was done to the materials once they were brought to the Site;

m. the final disposition of each of the materials involved in such transactions or shipments;

n. the measures taken by you to determine the actual methods, means and the site of treatment or disposal of the materials involved in the transaction or shipment;

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

p. if the materials came from a construction or wrecking project, the type of the project (e.g., dismantling of a building, road building), the types of materials (e.g.,bricks, wood), the type of insulation (e.g., asbestos, rock wool), the type of metal and a description of any other kind of waste.

Response: NL has located no information responsive to this request. NL continues its search for responsive information and reserves the right to supplement its responses as information becomes available.

7. Identify all persons, including yourself, who may have arranged for the disposal or treatment of materials at or to the Site, In addition, identify:

a. the persons with whom you or other such persons made such arrangements;

b. every date on which such arrangements took place;

c. for each transaction, the nature of the materials including the chemical content, characteristics, physical state (e.g., solid, liquid), and the process for which the substance was used or the process which generated the substance;

d. the owner of the materials so disposed of or treated;

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

f. all tests or analyses and the analytical results concerning each of the materials;

g. the precise locations at which each material actually was disposed of or treated;

h. the person(s) who selected the Site as the place at which materials were to be disposed of or treated;

i. the amount paid in connection with each transaction, the method of payment, and the identity of the person by whom payment was made;

j. where the person identified in i., above, intended to have such materials treated or disposed of and all evidence of this intent;

k. 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;

l. what was done to the materials once they were brought to the Site;

m. the final dispositions of each of the materials involved in such transactions;

n. the measures taken by you to determine the actual methods, means and the site of treatment or disposal of the materials involved in each transaction; and

o. the type and number of containers in which the materials were contained when they were accepted for transport, and subsequently until they were deposited at the site and all markings on such containers.

Response: See Response 4.d., above. In addition, NL is alleged to have accepted spent lead-acid batteries from SLC, later known as Standard Lead Corporation, under a tolling agreement in which

SLC performed battery breaking services for retailers and battery manufacturers and shipped the lead containing battery components to the Cleveland Smelter. This matter was brought to NL's attention in an EPA Request for Information dated April 1, 1995. NL has found no information in its files to substantiate the allegation. NL continues its review of the matter and reserves the right to supplement its response to this present Request regarding the Cleveland Smelter.

8. If you have reason to believe that there may be persons able to provide a more detailed or complete response to any question contained herein or who may be able to provide additional responsive documents, identify such persons and the additional information or documents that they may have. Provide the individual's current (or the most recent known) address and telephone number.

Response: As indicated in response to EPA's Request for Information No. 2, individuals who could have information responsive to these Requests are believed to be retired or no longer in the employ of NL Industries, Inc.. Notwithstanding the aforementioned, former employees who managed or supervised the Site are were identified from available internal phone books. These individuals are identified with their last known addresses and phone numbers in Exhibit 8.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAY 2 1996

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

REPLY TO THE ATTENTION OF:

SR-6J

Mr. David Garten
Vice President, Secretary, and General Counsel
NL Industries
16825 Northchase Drive
Suite 1200
Houston, TX 77060

Re: Request for Information Pursuant to Section 104 of CERCLA for Master Metals Inc. Site in Cleveland, Ohio

Dear Mr. Garten:

The U.S. Environmental Protection Agency (U.S. EPA or Agency) is investigating the Master Metals, Inc. Superfund Site (Site) in Cleveland, Ohio. This Site is located at 2850 W. Third Street, Cleveland, Ohio. It is located downtown Cleveland, in a heavy industrial area. The Cuyuhoga River is approximately 1500 feet to the east. There is a playground/athletic field 1500 feet to the west, residential area is 2000 feet to the north west. Master Metal operated as a secondary lead smelter. The U.S. EPA believes that you may have information that is relevant to the investigation of contamination at the Site and of the generators and transporters of waste to the Site.

NL Industries was an owner of the facility, conducting a lead alloys manufacturing operation. Subsequently, NL sold the facility to Master Metals, which continued to operate as a secondary lead smelter.

Master Metal obtained interim status pursuant to RCRA to operate the facility. Recently, Master Metals ceased operations and withdrew all permits and permit applications applicable to operating the facility. However, wide-spread contamination remains unremediated at the facility, which may pose an imminent and substantial risk to human health and the environment.

The U.S. EPA asks that you provide information and documents relating to the contamination of the Site, and the generators and transporters of waste to the Site. Please respond completely and truthfully to this Information Request and its questions in Attachment 1 within 20 days of your receipt of this letter. Instructions for completion of this response are in Attachment 2; definitions of terms used in this Information Request and its questions are in Attachment 3.

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The Agency requests this information pursuant to Section 104(e) (2) of CERCLA, 42 U.S.C, Section 9604 (e) (2). The federal **Superfund** law (the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601, et seq., commonly referred to as **CERCLA** or **Superfund**) grants the Agency the authority to: (1) assess contaminated sites, (2) determine the threats to human health and the environment posed by a site, (3) clean up those sites, and (4) determine the ability to pay the costs of the clean-up. CERCLA grants the Agency authority to gather information relevant to site(s) and to enforce compliance with the statute, including seeking penalties for failure to comply.

You may consider some information that we request as confidential. If you wish to assert a privilege of business confidentiality, you must both respond to the question and advise the U.S. EPA that you wish it to treat the response as confidential business information. Directions for asserting a claim of business confidentiality are in Attachment 4.

This information request is not subject to the approval requirements of the Paperwork Reduction Act of 1980, 44 U.S.C. section 3501 et seq.

Within 20 days of your receipt of this Information Request mail your response to:

Thomas Alcamo, Remedial Project Manager
U.S. Environmental Protection Agency
77 W Jackson Blvd.
Mail Code SR-6J
Chicago, IL 60604

If you have questions about a legal matter please call our attorney Stuart Hersh at (312) 886-6235. If you have technical questions about this Site, please call Thomas Alcamo, Remedial Project Manager, at (312) 886-7278.

We appreciate your effort to respond fully and promptly to this information request.

Sincerely,

Wendy Carney, Chief
Remedial Response Branch

Attachment:
1. Questions
2. Instructions
3. Definitions
4. Confidential Business Information

cc: Marcus Martin - Bartlit, Beck, Herman, Pallenchar, & Scott

bcc: C Bohlen HSMF-5J
S Hersh CS-29
R Morton CS-29
T Alcamo SR-6J

ATTACHMENT 1

QUESTIONS

Site: Master Metals, Site
Cleveland, Ohio

1. Identify all persons consulted in the preparation of the answers to these questions.

2. If you have reason to believe that there may be persons able to provide a more detailed or complete response to any question or who may be able to provide additional responsive documents, identify such persons. Provide the current address and telephone number of each.

3. If applicable, list the EPA Identification Numbers of the Respondent.

4. Did you ever use, purchase, generate, store, treat, dispose of, or otherwise handle any materials at the Site, or transport any materials or arrange for their transport to the Site? If your answer to this question is anything but an unequivocal no, answer the following questions:

   a. identify the chemical composition, characteristics, physical state (e.g. solid, liquid), and trade or chemical name of each material;

   b. state whether any of these materials were or contained *hazardous substances* as defined by CERCLA Section 101(14), 42 U.S.C. U9601(14);

      In brief, a hazardous substance is any material that poses a threat to public health and/or the environment. Typical hazardous substances are the materials that are toxic, corrosive, ignitable, explosive, or chemically reactive.

   c. identify the person and process which generated each such material, disposed of or otherwise handled by you;

   d. identify how each such material was used, purchased, generated, stored, treated, disposed of or otherwise handled by you;

   e. state when each such materials were used, purchased, generated, stored, treated, transported, disposed of or otherwise handled by you;

   f. state where each such materials were used, purchased, generated, stored, treated, transported, disposed of or otherwise handled by you; and

   g. identify the quantity of each such materials used, purchased, generated, stored, treated, transported, disposed of or otherwise handled by you.

5. State all times where NL Industries held an ownership interest and all times where NL Industries held an operational interest in the facility now known as Master Metals. Fully describe the nature of these interests, including each change and the date of such interest. Describe the manufacturing and maintenance processes at the facility now known as Master Metals during all times where NL Industries held an ownership or operating interest including:

   a. a description of all materials purchased for use in your operation(s), including the chemical identity and chemical composition of all identified, and the supplier;

   b. a description of all manufacturing processes that generated any by-products or wastes;

   c. a description of all maintenance operations that generated any by-products or wastes;

   d. a description of all products, by-products, and wastes generated.

6. Have you or any other person ever accepted materials for transportation to the Site from any person or transported materials to the Site? If the answer to this question is anything but an unequivocal no, identify:

   a. the persons from whom you or such other persons accepted materials for transport;

   b. every date on which materials were so accepted or transported;

   c. for each transaction or shipment, the nature of the materials including the chemical content, characteristics, physical state (e.g. solid or liquid), the process for which the substance was used or the process which generated the substance or whether the materials came from a construction project;

   d. the owner of the materials so accepted or transported;

   e. the quantity of the materials involved (weight or volume) in each transaction or shipment and the total quantity for all transactions or shipments;

   f. all tests or analyses and analytical results concerning each of the materials;

   g. the precise location to which each material actually was transported;

   h. the person(s) who selected the Site as the place to which the materials would be

transported;

I. the amount paid in connection with each transaction or shipment, the method of payment, and the identity of the person from whom payment was received;

j. where the person identified in I., above, intended to have such materials transported and all evidence of this intent;

k. whether the materials involved in each transaction or shipment were transshipped through, or were stored or held at, any intermediate site prior to final treatment or disposal;

l. what was done to the materials once they were brought to the Site;

m. the final disposition of each of the materials involved in such transactions or shipments;

n. the measures taken by you to determine the actual methods, means, and the site of treatment or disposal of the materials involved in the transaction or shipment;

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

p. if the materials came from a construction or wrecking project, the type of the project (e.g., dismantling of a building, road building), the types of materials (e.g., bricks, wood), the type of insulation (e.g., asbestos, rock wool), the type of metal and a description of any other kind of waste.

7. Identify all persons, including yourself, who may have arranged for disposal or treatment of materials at or to the Site. In addition, identify:

a. the persons with whom you or other such persons made such arrangements;

b. every date on which such arrangements took place;

c. for each transaction, the nature of the materials including the chemical content, characteristics, physical state (e.g., solid, liquid), and the process for which the substance was used or the process which generated the substance;

d. the owner of the materials so disposed of or treated;

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

f. all tests or analyses and analytical results concerning each of the materials;

g. the precise locations at which each material actually was disposed of or treated;

h. the person(s) who selected the Site as the place at which materials were to be disposed of or treated;

I. the amount paid in connection with each transaction, the method of payment, and the identity of the person by whom payment was made;

j. where the person identified in I., above, intended to have such materials treated or disposed of and all evidence of this intent;

k. 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;

l. what was done to the materials once they were brought to the Site;

m. the final dispositions of each of the materials involved in such transactions;

n. the measures taken by you to determine the actual methods, means and the site of treatment or disposal of the materials involved in each transaction; and

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

8. If you have reason to believe that there may be persons able to provide a more detailed or complete response to any question contained herein or who may be able to provide additional responsive documents, identify such persons and the additional information or documents that they may have. Provide the individual's current (or the most recent known) address and telephone number.

ATTACHMENT 2

INSTRUCTIONS

1. Answer each of the questions in this Information Request separately.

2. Precede each answer with the number of the question to which it corresponds.

3. In answering each question, identify all persons and contributing sources of information.

4. You must supplement your response to U.S. EPA if, after submission of your response, additional information should later become known or available. Should you find at any time after the submission of your response that any portion of the submitted information is false or misrepresents the truth, you must notify U.S. EPA as soon as possible.

5. For any document submitted in response to a question, indicate the number of the question to which it responds.

6. You must respond to each question based upon all information and documents in your possession or control, or in the possession or control of your current or former employees, agents, contractors, or attorneys. Information must be furnished regardless of whether or not it is based on your personal knowledge, and regardless of source.

7. Your response should be accompanied by a notarized affidavit from a responsible company official or representative which states that a diligent record search has been completed, and that there has been a diligent interviewing process with all present and former employees who may have knowledge of your operations, use of hazardous substances, any releases or spills, and any storage, treatment, disposal or handling practices. To the extent that any information you provide is based on your personal knowledge, or the personal knowledge of your employees, agents, or their representatives, this information shall be in the form of a notarized affidavit. In lieu of a notarized affidavit, you may submit the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

The certification should be signed and dated by a responsible corporate official, and show that official's title. If you are responding as an individual, please submit your response with a notarized affidavit or with a certification signed by you.

8. If any of the requested documents have been transferred to others or have otherwise been disposed of, identify each document, the person to whom it was transferred, describe the circumstances surrounding the transfer or disposition, and state the date of the transfer or disposition.

9. All requested information must be provided notwithstanding its possible characterization as confidential information or trade secrets. If desired, you may assert a business confidentiality claim by means of the procedures described in Attachment 4.

ATTACHMENT 3

Definitions

1. As used in this letter, words in the singular also include the plural and words in the masculine gender also include the feminine and vice versa.

2. The term ***person*** as used herein includes, in the plural as well as the singular, any natural person, firm, contractor, unincorporated association, partnership, corporation, trust or governmental entity, unless the context indicates otherwise.

3. ***The Site*** referenced in these documents shall mean the **Master Metal Site** located in Cleveland, Ohio.

4. The term ***hazardous substance*** shall have the same definition as that contained in Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), including any mixtures of such hazardous substances with any other substances, including petroleum products.

   A hazardous substance is any material that poses a threat to public health and/or the environment. Typical hazardous substances are the materials that are toxic, corrosive, ignitable, explosive or chemically reactive.

5. The term ***pollutant*** or ***contaminant*** shall have the same definition as that contained in Section 101(33) of CERCLA, and includes any mixtures of such pollutants and contaminants with any other substances.

6. The term ***release*** shall have the same definition as that contained in Section 101(22) of CERCLA, and means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment, including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant..

7. The term ***identify*** means, with respect to a natural person, to set forth the person's full name, present or last known business address and business telephone number, present or last known home address and home telephone number, and present or last known job title, position or business.

8. The term ***identify*** means, with respect to a corporation, partnership, business trust or other association or business entity (including a sole proprietorship), to set forth its full name, address, legal form (e.g., corporation, partnership), organization, if any, and a brief description of its business.

9. The term ***identify*** means, with respect to a document, to provide its customary business description, its date, its number if any (invoice or purchase order number), the identity of the author, addressor, addressee and/or recipient, and the substance or the subject matter.

10. All terms not defined herein shall have their ordinary meaning, unless such terms are defined in Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), 40 CFR Part 300 or 40 CFR Part 260-280, in which case the statutory or regulatory definitions shall apply.

`ATTACHMENT 4

CONFIDENTIAL BUSINESS INFORMATION

You may consider some of the information confidential that the U.S. Environmental Protection Agency (U.S. EPA or Agency) is requesting. You can not withhold information or records upon that basis. The Regulations at 40 C.F.R. Part 2, Section 200 et seq require that the U.S. EPA afford you the opportunity to substantiate your claim of confidentiality before the Agency makes a final determination on the confidentiality of the information.

You may assert a business confidentiality claim covering part or all of the information requested, in the manner described by 40 C.F.R. 2.203(b). Information covered by such a claim will be disclosed by the U.S. EPA only to the extent and only by means of the procedures set forth in 40 C.F.R. Part 2, Subpart B. [See 41 Federal Register 36902 et seq. (September 1, 1976); 43 Federal Register 4000 et seq. (December 18, 1985).] If no such claim accompanies the information when the U.S. EPA receives it, the information may be made available to the public by the Agency without further notice to you. Please read carefully these cited regulations, together with the standards set forth in Section 104(e) (7) of Comprehensive Environmental Response Compensation Liability Act (CERCLA), because, as stated in Section 104(e) (7) (ii), certain categories of information are not properly the subject of a claim of confidential business information.

If you wish the U.S. EPA to treat the information or record as confidential, you must advise the U.S. EPA of that fact by following the procedures described below, including the requirement for supporting your claim of confidentiality. To assert a claim of confidentiality, you must specify which portions of the information or documents you consider confidential. Please identify the information or document that you consider confidential by page, paragraph and sentence. You must make a **separate** assertion of confidentiality for **each response** and **each document** that you consider confidential. Submit the portion of the response that you consider confidential in a separate, sealed envelope. Mark the envelope confidential and identify the number of the question to which it is the response.

For each assertion of confidentiality, identify:

1. The period of time for which you request that the Agency consider the information confidential, e.g. until a specific date or until the occurrence of a specific event;

2. The measures that you have taken to guard against disclosure of the information to others;

3. The extent to which the information has already been disclosed to others and the precautions that you have taken to ensure that no further disclosure occurs;

4. Whether the U.S. EPA or other federal agency has made a pertinent determination

on the confidentiality of the information or document. If an agency has made such a determination, enclose a copy of that determination.

5. Whether disclosure of the information or document would be likely to result in substantial harmful effects to your competitive position. If you believe such harm would result from any disclosure, explain the nature of the harmful effects, why the harm should be viewed as substantial, and the causal relationship between disclosure and the harmful effect. Include a description of how a competitor would use the information.

6. Whether you assert that the information is voluntarily submitted as defined by 40 C.F.R. 2.201(i). If you make this assertion, explain how the disclosure would tend to lessen the ability of the U.S. EPA to obtain similar information in the future.

7. Any other information that you deem relevant to a determination of confidentiality.

Please note that pursuant to 40 C.F.R. 2.208(e) **the burden of substantiating confidentiality rests with you**. The U.S. EPA will give little or no weight to conclusory allegations. If you believe that facts and documents necessary to substantiate confidentiality are themselves confidential, please identify them as such so that the U.S. EPA may maintain their confidentiality pursuant to 40 C.F.R. 2.205(c). If you do not identify this information and documents as confidential, your comments will be available to the public without further notice to you.

Exhibit 1

NL

January 28, 1982

Ms. Kathy Zenkert
Master Metals, Inc.
2850 W. Third Street
Cleveland, Ohio 44113

Dear Kathy:

Enclosed are the lists of hourly and salaried people which were employed on September 7, 1979, the date NL sold the Cleveland Plant to Master Metals, Inc.

We anticipate sending letters to each of these individuals as soon as we receive their most current addresses. If you notice any terminated employees that are not noted as such, would you please indicate the date of termination.

We shall need addresses for terminated people as well as those people who are currently active.

Your assistance in helping us notify these employees of their NL benefits is greatly appreciated.

Sincerely,

Patti

Patti L. Dollar
Benefits Supervisor

PLD:jp
Enclosures

3/1/82

Patti,

Sorry to be so long in getting this information for you. I cannot guarantee the addresses of the hourly people. This is what I have on record as of this date.

Kathy

NL Industries, Inc.
P.O. Box 420, Hightstown, N.J. 08520

CORPORATE BENEFITS

MAR 5 1982

Fairbanks, Charles R
3158 West 43rd Street
Cleveland, Ohio 44109

Graster, Steven
3665 E. 110th Street
Cleveland, Ohio 44105

Hill, John
5131 Bougner Road
Rock Creek, Ohio 44084

Hilton, Tyrone
13825 Maplerow
Garfield Heights, Ohio 44125

Jones, Elbert
3966 E. 120th Street
Cleveland, Ohio 44105

Jordan, Douglas
2230 E. 101 Street
Cleveland, Ohio 44106

Pacheco, William
1909 W. 54th Street
Cleveland, Ohio 44102

Ross, Robert L.
1314 W. 28th Street Apt. 99
Cleveland, Ohio 44113

Smith, Robert
912 Dresden
Cleveland Heights, Ohio 44112

Thompson, David
10714 Crestwood Street
Cleveland, Ohio 44104

Brown, Ray
928 E. 128th Street
Cleveland, Ohio 44108

Campbell, Lee
19304 Harvard Rd.
Warrensville Heights, Ohio 44112

Collins, Amos
8623 Folson Avenue
Cleveland, Ohio 44104

Evanovich, Emil
3342 Lincoln Avenue
Parma, Ohio 44134

Lane, Albert
8028 White Thorn Avenue
Cleveland, Ohio 44103

Robinson, Robert
2186 E. 93rd Street
Cleveland, Ohio 44106

Walker, John
6408 Dibble Avenue
Cleveland, Ohio 44103

Wright, Joseph
3694 Hildana Road
Shaker Heights, Ohio 44120

Ramey, Jessie J.
14011 Glenside Road
Cleveland, Ohio 44110

Terrell, Harry
3418 E. 117 Street
Cleveland, Ohio 44120

Bell, William
3591 E. 105th Street
Cleveland, Ohio 44128

Brown, Milton L.
4830 Lee Road Apt. 9-E
Cleveland, Ohio 44128

Crayton, Clarence
4066 E. 150th Street
Cleveland, Ohio 44128

Guiden, Alfred
4257 E. 163 Street
Cleveland, Ohio 44128

Hemphill, James
654 E. 102nd Street
Cleveland, Ohio 44108

Hickerson, Ellsworth
2541 W. 5th Street Apt. D
Cleveland, Ohio 44113

Johnson, Allen
1359 E. 66th Street
Cleveland, Ohio 44101

Pulley, Lawrence
9310 Prott Avenue
Cleveland, Ohio 44105

Robinson, Earl L
1505 E. 133 Street
E. Cleveland, Ohio 44112

Shy, Douglas
1882 Reyburn
E. Cleveland, Ohio 44112

Swanson, Arthur J.
8127 Holten Avenue
Cleveland, Ohio 44103

Woodard, John E.
Star Route Box 156
Lisman, Alabama 36912

Ballard, Wenners
4125 E. 136 Street
Cleveland, Ohio 44105

Barnes, Willie
13405 Barlett
Cleveland, Ohio 44120

Bell, William
4085 E. 108 Street
Cleveland, Ohio 44105

Carrington, James
2606 E. 28th Apt. 506
Cleveland, Ohio 44103

Carrington, Larry
13008 #9 Buckeye Rd.
Cleveland, Ohio 44106

Colbert, Douglas
1099 E. 125th St. Apt 7
Cleveland, Ohio 44108

Cuevas, Jose
3507 W. 25th Street
Cleveland, Ohio 44109

Dedor, Joseph
10190 Pleasent Lake
Parma, Ohio 44130

Fairbanks, Kevin
3158 W. 43rd. Street
Cleveland, Ohio 44109

Flowers, James
13462 Euclid Avenue Apt. 1
Cleveland, Ohio 44112

Hall, Lenell
13817 Benwood Avenue
Cleveland, Ohio 44105

Harrell, Rudolph
1723 Warrensville Center Road
S. Euclid, Ohio 44214

Houston, Harrison
13401 Casper Road
Cleveland, Ohio 44104

Jones, Sampson
10108 Orleans
Cleveland, Ohio 44108

Magda, Romolus
2725 Queen Avenue
Cleveland, Ohio 44113

Neal, Roderick
3593 Menlo
Shaker Heights, Ohio 44120

Paryzek, Jeff
7846 Normandie
Middleburg Heights, Ohio 44130

Ross, James E.
1383 E. 94th Street
Cleveland, Ohio 44106

Sanders, RL
12110 Buckingham Street
Cleveland, Ohio 44120

Scott, Albert
2537 E. 38th St. Apt. 5
Cleveland, Ohio 44113

Thrower, Reginal
13409 Coath Avenue
Cleveland, Ohio 44120

Ammons, James
4244 E. 177 Place
Cleveland, Ohio 44128

Lawrence, Otto L.
4066 E. 153 Street
Cleveland, Ohio 44128

Neskey, Robert
15556 Cottonwood Oval
Middleburg Heights, Ohio 44130

Zenkert, Kathryn L.
17547 W. 130th Street
N. Royalton, Ohio 44133

Key, Frank
3423 Spangler Road
Cleveland Heights, Ohio 44112

Franks, Joseph
1217 N. Lockwood
Cleveland, Ohio 44112

Glatz, Robert C.
27887 West Oakland
Bay Village, Ohio 44140

Richardson, Helen
8514 Biddulph Road
Brooklyn, Ohio 44144

Simmer, Elton
20624 Fairtree Drive
Strongsville, Ohio 44136

Bray, Reginal
3441 E. 128 C
Cleveland, Ohio 44120

Barrett, Gerald E.
4010 Maplecrest
Parma, Ohio 44134

Dietrich, Robert
883 Hampton Ridge Road
Akron, Ohio 44313

Gery, Charles A.
33980 Roberts Road
Eastlake, Ohio 44094

METAL DIVISION

Cleveland Plant - Hourly Employees

May Vest at a Future Date

Name	Monthly Benefit	Soc. Sec. #	Vesting Date	Letter Sen
Fairbanks, Charles R.	$61.00	286-07-3595	6/1/81*	
Graster, Steven	$ 2.85	294-54-2194	7/17/86*	
Hill, John	$35.03	239-36-7666	6/1/81 - withdrew on 3/1/80 pension contrib. plus interest $1,588.40	
Hilton, Tyrone	$42.15	273-52-5510	4/22/81**-lost vesting withdrew 3/1/80 contributions plus interest $1,067.63	
Jones, Elbert	$52.76	414-36-4848	3/11/81**-lost vesting withdrew 3/1/80 contributions plus interest $1,372.31	
Jordan, Douglas	$ 4.98	294-50-3260	4/19/86**-lost vesting withdrew contributions plus interest on 4/1/81 $92.16-also terminated from Master Metals on 5/12/81	
Pacheco, William	$ 4.58	583-18-0173	6/10/87**-not vested withdrew contributions plus interest $75.43	
Ross, Robert L.	$ 5.08	296-48-1415	9/19/87**-withdrew contributions on 4/1/80 not vested-laid off from Master Metals 10/12/81	
Smith, Robert L.	$60.17	296-36-0160	5/1/83**-withdrew 6/1/80 contributions plus interest $1,593.98 - lost company vesting	
Thompson, David	$ 4.78	269-50-9818	6/15/88*-withdrew 2/18/80 contributions plus interest $78.79-lost vesting	

* Still employed as of 12/1/81 with purchaser.
** Lost vested interest in company portion-withdrew prior to vesting date.

METAL DIVISION

Cleveland Plant - Hourly Employees

Vested at Time of Sale

Name	Monthly Benefit	Soc. Sec. #	Date Sent
Brown, Ray	$138.99 - withdrew contributions (plus interest) $1,305.75	430-48-6163	
Campbell, Lee	$74.80 - withdrew contributions (plus interest) $3,267.16	412-28-8898	
Collins, Amos	$178.83	236-30-5391	
Evanovich, Emil	$204.74	271-24-2672	
Lane, Albert	$64.22 - withdrew contributions (plus interest) $2,802.31	428-44-8619	
Robinson, Robert	$47.30 - withdrew contributions (plus interest) $2,413.96	422-32-6466	
Walker, John	$162.03	425-46-9708	
Wright, Joseph	$30.04 - withdrew contributions (plus interest) $1,332.62	252-46-5857	

METAL DIVISION

Cleveland Plant - Hourly Employees

Eligible for Retirement at Time of Sale

Name	Monthly Benefit	Soc. Sec. #	Letter Sent
Ramey, Jessie J.	$81.02	431-20-9161	Benefits commenced 4/1/80
Terrell, Harry	$79.97	715-07-0200	Sent election form to commence a benefit. NL awaiting return of completed form.

METAL DIVISION

Cleveland Plant - Hourly

Former Participants - Withdrew Prior to Vesting

Name	Soc. Sec. #	Reason	Date Sent
Bell, Jr., William	274-38-9958	Requested withdrawal of contributions $351.26	
Brown, Milton L.	587-64-1592	Requested withdrawal of contributions $504.16	
Crayton, Clarence	420-16-3381	Requested withdrawal of contributions on 2/1/73	
Guiden, Alfred	272-34-7040	Requested withdrawal of contributions (plus interest) $469.43	
Hemphill, James	290-05-0245	Requested withdrawal of contributions (plus interest) $504.03	
Hickerson, Ellsworth C.	294-36-0250	Requested withdrawal of contributions (plus interest) $868.23	
Johnson, Allen	429-48-7258	Requested withdrawal of contributions on 8/17/76	
Pulley, Lawrence	426-70-7594	Withdrew contributions 10/1/78-was not participating at time of sale	
Robinson, Earl L.	269-42-1600	Requested withdrawal 10/1/77-contributions (plus interest) $615.52	
Shy, Douglas	273-52-9463	Requested withdrawal on 9/1/79-contributions (plus interest) $349.23	
Swanson, Arthur J.	253-50-3635	Requested withdrawal on 4/16/79 contributions (plus interest) $1,194.92	
Woodard, John	420-54-4926	Requested withdrawal on 7/23/79 contributions (plus interest) $637.11	

METAL DIVISION

Cleveland Plant - Hourly Employees

Not in Plan at Time of Sale

Name	Soc. Sec. #	Reason	Date Sent
Ballard, Wenners	417-26-2098	Waived participation	
Barnes, Willie	294-54-1494	Ineligible (age)	
Bell, William	371-52-1385	Ineligible (service)	
Carrington, James	270-56-3077	Ineligible (age)	
Carrington, Larry	290-58-8310	Ineligible (age)	
Colbert, Douglas	278-54-1259	Ineligible (age/service)	
Cuevas, Jose	270-64-1684	Ineligible (age/service)	
Dedor, Joseph	285-64-0257	Ineligible (age)	
Fairbanks, Kevin C.	300-58-5145	Waived participation	
Flowers, James	274-38-5813	Waived participation	
Hall, Lenell	297-56-8055	Ineligible (age)	
Harrell, Rudolph	280-36-2364	Ineligible (service)	
Houston, Harrison	409-14-7759	Waived participation	
Jones, Sampson	587-22-0586	Ineligible (age)	
Magda, Romolus	285-56-0638	Ineligible (age/service)	
Neal, Roderick	272-54-0373	Ineligible (age)	
Paryzek, Jeff G.	290-44-1466	Ineligible (service)	
Ross, James E.	274-66-1914	Ineligible (age)	
Sanders, R. L.	587-16-3721	Ineligible (service)	
Scott, Albert	290-50-0998	Ineligible (service)	
Thrower, Reginald	272-60-0451	Ineligible (age)	

METAL DIVISION

Cleveland Plant - Salaried Employees

Vested at Time of Sale

Name	Monthly Benefit	Soc. Sec. #	Letter Sent
Ammons, James	$148.80	252-66-0303	2/11/80
Lawrence, Otto L.	$352.78	417-36-4539	2/11/80
Nesky, Robert	$296.20	205-38-4878	being processed
Zenkert, Kathryn L.	$232.00	298-26-4637	already processed

METAL DIVISION

Cleveland Plant - Salaried Employees

Eligible for Retirement at Time of Sale

But Laid Off From NL

Name	Monthly Benefit	Soc. Sec. #	Letter Sent
Key, Frank	$400.39 plus Rule of 80	417-26-4578	already commenced benefit

METAL DIVISION

Cleveland Plant - Salaried Employees

Eligible for Retirement at Time of Sale

Name	Monthly Benefit	Soc. Sec. #	Letter Sent
Franks, Joseph	$371.38	422-16-7504	Already processed - benefit commenced
Glatz, Robert C.	$496.96	271-10-7610	Already processed - benefit commenced
Richardson, Helen	$167.51	280-14-6511	Already processed - benefit commenced early 1-1-82
Simmer, Elton J.	$285.94	288-14-3803	Already processed

METAL DIVISION

Cleveland Plant - Salaried Employees

Vested at Time of Sale But Laid Off From NL

Name	Monthly Benefit	Soc. Sec. #	Letter Sent
Bray, Reginald	$69.98	261-46-9646	2/13/80 *

* No additional letter sent.

METAL DIVISION

Cleveland Plant - Salaried Employees

May Be Eligible for Vesting at a Future Date

Name	Monthly Benefit	Soc. Sec. #	Vesting Date	Date Sent
Barrett, Gerald E.	$ 1.41	274-46-6068	4/2/89	*
Dietrich, John R.	$31.07	274-01-9033	2/1/83	*
Gery, Charles A.	$52.22	054-34-9621	1/1/82	*

* No letter sent - terminated prior to vesting date.

Exhibit 2

EPA Notification of Hazardous Waste Site

United States Environmental Protection Agency
Washington DC 20460

This initial notification information is required by Section 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 and must be mailed by June 9, 1981.

Please type or print in ink. If you need additional space, use separate sheets of paper. Indicate the letter of the item which applies.

A Person Required to Notify:
Enter the name and address of the person or organization required to notify.

Name: NL Industries, Inc.
Street: P. O. Box 1090 (Wyckoff Mills Rd.)
City: Hightstown State: NJ Zip Code: 08520

B Site Location:
Enter the common name (if known) and actual location of the site.

Name of Site: Master Metals, Inc.
Street: 2850 3rd St., W.
City: Cleveland County: Geauga State: OH Zip Code: 44113

C Person to Contact:
Enter the name, title (if applicable), and business telephone number of the person to contact regarding information submitted on this form.

Name (Last, First and Title): Baser, F. R., Dir. Environmental Contr
Rodman, H. G., Environmental Engineer
Phone: 609/443-2411 or 2410

D Dates of Waste Handling:
Enter the years that you estimate waste treatment, storage, or disposal began and ended at the site.

From (Year): 1933 To (Year): 1979

E Waste Type: Choose the option you prefer to complete

Option 1: Select general waste types and source categories. If you do not know the general waste types or sources, you are encouraged to describe the site in Item I—Description of Site.

General Type of Waste:
Place an X in the appropriate boxes. The categories listed overlap. Check each applicable category.

1. ☐ Organics
2. ☒ Inorganics
3. ☐ Solvents
4. ☐ Pesticides
5. ☒ Heavy metals
6. ☐ Acids
7. ☐ Bases
8. ☐ PCBs
9. ☐ Mixed Municipal Waste
10. ☐ Unknown
11. ☒ Other (Specify)

Slag
Battery casings

Source of Waste:
Place an X in the appropriate boxes.

1. ☐ Mining
2. ☐ Construction
3. ☐ Textiles
4. ☐ Fertilizer
5. ☐ Paper/Printing
6. ☐ Leather Tanning
7. ☐ Iron/Steel Foundry
8. ☐ Chemical, General
9. ☐ Plating/Polishing
10. ☐ Military/Ammunition
11. ☐ Electrical Conductors
12. ☐ Transformers
13. ☐ Utility Companies
14. ☐ Sanitary/Refuse
15. ☐ Photofinish
16. ☐ Lab/Hospital
17. ☐ Unknown
18. ☒ Other (Specify)

Secondary ~~Sec.~~ lead plant.
Lead alloys mfg.

Option 2: This option is available to persons familiar with the Resource Conservation and Recovery Act (RCRA) Section 3001 regulations (40 CFR Part 261).

Specific Type of Waste:
EPA has assigned a four-digit number to each hazardous waste listed in the regulations under Section 3001 of RCRA. Enter the appropriate four-digit number in the boxes provided. A copy of the list of hazardous wastes and codes can be obtained by contacting the EPA Region serving the State in which the site is located.

Form Approved
OMB No. 2000-0138

Notification of Hazardous Waste Site — Side Two

F Waste Quantity

Place an X in the appropriate boxes to indicate the facility types found at the site.

In the "total facility waste amount" space give the estimated combined quantity (volume) of hazardous wastes at the site using cubic feet or gallons.

In the "total facility area" space, give the estimated area size which the facilities occupy using square feet or acres.

Facility Type

1. ☐ Piles
2. ☐ Land Treatment
3. ☐ Landfill
4. ☐ Tanks
5. ☐ Impoundment
6. ☐ Underground Injection
7. ☐ Drums, Above Ground
8. ☐ Drums, Below Ground
9. ☐ Other (Specify) _____

Total Facility Waste Amount

cubic feet: Unknown

gallons: _____

Total Facility Area

square feet: Unknown

acres: _____

G Known, Suspected or Likely Releases to the Environment:

Place an X in the appropriate boxes to indicate any known, suspected, or likely releases of wastes to the environment.

☐ Known ☐ Suspected ☐ Likely ☒ None

Note: Items H and I are optional. Completing these items will assist EPA and State and local governments in locating and assessing hazardous waste sites. Although completing the items is not required, you are encouraged to do so

H Sketch Map of Site Location: (Optional)

Sketch a map showing streets, highways, routes or other prominent landmarks near the site. Place an X on the map to indicate the site location. Draw an arrow showing the direction north. You may substitute a publishing map showing the site location.

I Description of Site: (Optional)

Describe the history and present conditions of the site. Give directions to the site and describe any nearby wells, springs, lakes, or housing. Include such information as how waste was disposed and where the waste came from. Provide any other information or comments which may help describe the site conditions.

Slag and battery casings stored prior to disposal off-site. Used to build breakwater and jettys in Cleveland harbor, and also sent to local disposal sites.

J Signature and Title:

The person or authorized representative (such as plant managers, superintendents, trustees or attorneys) of persons required to notify must sign the form and provide a mailing address (if different than address in item A). For other persons providing notification, the signature is optional. Check the boxes which best describe the relationship to the site of the person required to notify. If you are not required to notify check "Other"

Name: F. R. Baser

Street: _____

City: _____ State: _____ Zip Code: _____

Signature: Fred R Baser Date: 6/8/81

☐ Owner, Present
☒ Owner, Past
☐ Transporter
☐ Operator, Present
☒ Operator, Past
☐ Other

[FR Doc. 81-11200 Filed 4-14-81; 8:45 am]
BILLING CODE 6560-29-C

Exhibit 3

CLEVELAND PLANT

INVENTORY ANALYSIS 6/30/79

		P	O	U	N	D	S
	Total	Lead	Tin	Antimony	Zinc		Other
Antimonial Lead	1555649	1513234	2776	37879			1760
Secondary Soft Lead	342091	340999	954	26			112
Purchased Secondary	76213	61758	11260	694	664		1837
Furnace Production	884131	858607	1915	21811			1798
In Transit	49977	37656	3527	8402			392
Hard to Smelt Inventory	359822	359822					
Internal Drosses	372820	333256		39564			
Plates	1087456	1058531	1041	26811			1073
Crushed Batteries	645847	622106		23741			
Batteries	93017	90400	93	2431			93
Primary Metals	19546	---	223	4750			14573
Conversion-Inventory	[140502]	[137467]	[141]	[2894]			
Total	5346067	5138902	21648	163215	664		21638

NOTE - Total column is equal to Total Metal pounds not gross pounds.

CLEVELAND PLANT

INVENTORY ANALYSIS 6/30/79

POUNDS

	1	2	3	4	5	6	7	5	6
				P	O	U	N	D	S
			TOTAL	LEAD	TIN	ANTIMONY	ZINC		OTHER
1	ANTIMONIAL LEAD		1555649	1513234	2996	37879			1760
2	SECONDARY SOFT LEAD		342091	340999	954	26			112
3	PURCHASED SECONDARY		76213	61758	11260	694	664		1837
4	FURNACE PRODUCTION		884131	858607	1915	21811			17798
5	IN TRANSIT		49977	37656	3527	8402			392
6	HARD TO SMELT INVENTORY		359822	359822					—
7	INTERMEDIATE DROSSES		372820	333256		39564			—
8	PLATES		1087456	1058531	1041	26811			1073
9	CRUSH BATTERIES		645847	622106		23741			—
10	BATTERIES		93017	90490	93	2431			93
11	PRIME METALS		19546	—	223	4750			14573
12	CONVERSION INVENTORY		<140502>	<137467>	<141>	<2894>			—
13									
14	TOTAL		5346067	5138902	21648	163215	664		21638
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26	NOTE - 1. TOTAL COLUMN IS EQUAL TO TOTAL METAL POUNDS								
27	NOT GROSS POUNDS								
28									
29	TOTAL COLUMN [illegible]								
30									

Cleveland Inventory
Raw Materials as of July 1979

		Gross Weight	Metal Weight	Per Lb (Cents)	Total Value	Inventory Value	Pb	Sn	Sb	As
.00	Tin	223	223	6.00	13380	13380				
.00	Antimony	4750	4750	1.60	6250	7725				
.00	Arsenic - Metallic	2682	2682	2.15	5763	5763				
.00	Cadmium	100	100	2.50	250	350				
.00	Silver	29	29	1.32	38	370				
.31	Copper	954	954	.78	744	780				
.32	Aluminum	4569	4569	.20	914	3402				
.33	Selenium	405	405	11.50	466	6075				
.34	Strontium	1283	1283	.75	962	962				
				Per Cent						
.00	Whole Batteries	161404	80213	17.00	13643	30466				
.03	Plates	1782585	1301283	26.15	34032	49021				
.225	Grids & Oxides	1168575	784682	23.80	27344	32358				
.00	Antimony Lead Dross	198997	154005	25.85	5038	4581				
.302	Flue Dust	238205	137590	4.25	1284	5938				
.400	Reverb. Slag	861252	680383	25.50	3478	17235				
.321	Sc As-Sb-Pb 20-30% Sn	10975	10975	31.50	3456	7025	8.25		27.44	1.09
.305	Sc Solder 5-10% Sn	6211	6209	5.00	310	6155	5.44	4.65		
.390	Sc Solder 90-95% Sn	2880	2880	8.50	244	2455	2.91	85.89		
.611	Sc Solder Copper-Nickel	290	290	2.00	6	582				
.612	Cadmium Zinc Alloy	1620	1620	2.50	40	2027				
.900	Pb Pb Sc Cacs	4095	4095	1.50	61	4957	4.095			
.321	Tin Aluminum Alloy	7960	7960	3.00	238	2386		7.958		

Cleveland Inventory
Finished Goods Inventory as of July 1978

		Weight		Per lb	Total Value	Inventory Value
A	Ant Lead	834367	[illegible]	.55	45890185	28510462
L	Soft Lead	343512	[illegible]	.55	18893160	19379127
	Total				64783345	581895.89
	Less Customer Reserve	117820			(5835825)	(42772)
	Total Cleveland				502805060	196095990

Cleveland Inventory
Work in Process as of July 1939

		Weight	Per lb	Total Value	Inventory Values				
AW	Ant. Lead in Kettles	376121	.53	199344.63	192621.16	PB	Lead	$40./ton	R/A/C
QD	Furnace Metal	92506	.49	45322.84	40080.34				
				244672.07	232701.50				

SCHEDULE G

METAL INVENTORY

Metal Inventory 8/19/79 (To be adjusted to Physical)		$650,622
Less:	Customer Inventory 8/19/79 (To be adjusted)	(58,152)
Less:	Advance Payments Liability (To be adjusted)	(21,411)
		$571,059

CLEVELAND

METAL INVENTORY 8/19

TO BE ADJUSTED TO PHYSICAL

	Gross Wt.	Value Per Lb.	Total Value
Antimony	4,160	1.40	$ 5,824
Arsenic	6,682	2.10	14,032
Cadmium	100	2.50	250
Silver	29	131.22	3,805
Aluminum	4,569	.60	2,741
Selenium	405	12.00	4,860
Strontium	1,283	6.96	8,930
Tin	223	6.90	1,539
Copper	854	.80	683
Whole Batteries	6,498	.1700	1,105
Plates -- All Types	893,859	.2634	235,442
Grids & Oxide	184,829	.3100	57,297
Antimony Lead Dross	279,498	.2729	76,275
Reverb Slag	440,464	.2595	114,300
Scrap As-Sb-Pb 25% Sb	7,256	.575	4,172
Scrap Solder 5-10% Sn	6,211 Sn 6.00	Pb .53	5,834
Sc. Solder 90-95% Sn	3,880 Sn 6.25	Pb .55	22,591
Sc. Solder Cu-Ni	291	2.00	582
Pipe for Se Charges	4,095	.49	2,007
Tin Aluminum Alloy	9,420	5.46	51,433
Furnace Metal	71,000	.52	36,920
Total Metal Inventory	1,925,606		$ 650,622

9/6/79

CLEVELAND

CUSTOMER INVENTORY

TO BE ADJUSTED

CUSTOMER	GROSS WT.	PER LB. GROSS	VALUE
GLOBE UNION			
Grids & Oxides	73,568	.3100	$ 22,806
GOULD			
Grids & Oxides	35,098	.3100	10,880
A/L Dross	30,262	.2729	8,258
Plates	61,534	.2634	16,208
	126,894		35,346

Estimated Customer Inventory Credit $ 58,152

9/6/79

CLEVELAND

ADVANCE PAYMENTS LIABILITY

TO BE ADJUSTED

CUSTOMER	GROSS WT.	ADVANCE PAYMENT PER LB.	VALUE
GLOBE UNION			
Grids & Oxides	73,568	.10452	$ 7,689
GOULD			
Grids & Oxides	35,098	.10815	3,796
A/L Dross	30,262	.10816	3,273
Plates	61,534	.10812	6,653
	126,894		13,722
Estimated Advance Payments Credit			$ 21,411

Exhibit 3

CLEVELAND PLANT

INVENTORY ANALYSIS 6/30/79

		P	O	U	N	D	S
	Total	Lead	Tin	Antimony	Zinc		Other
Antimonial Lead	1555649	1513234	2776	37879			1760
Secondary Soft Lead	342091	340999	954	26			112
Purchased Secondary	76213	61758	11260	694	664		1837
Furnace Production	884131	858607	1915	21811			1798
In Transit	49977	37656	3527	8402			392
Hard to Smelt Inventory	359822	359822					
Internal Drosses	372820	333256		39564			
Plates	1087456	1058531	1041	26811			1073
Crushed Batteries	645847	622106		23741			
Batteries	93017	90400	93	2431			93
Primary Metals	19546	---	223	4750			14573
Conversion-Inventory	[140502]	[137467]	[141]	[2894]			
Total	5346067	5138902	21648	163215	664		21638

NOTE - Total column is equal to Total Metal pounds not gross pounds.

5/16/71 NATIONAL 45-707 20/20 BUFF Made in U.S.A.

CLEVELAND PLANT
INVENTORY ANALYSIS 6/30/79
IN POUNDS

	1	2	3	4	5	6	7	5	6
				P	O	U	N	D	S
			TOTAL	LEAD	TIN	ANTIMONY	ZINC		OTHER
1	ANTIMONIAL LEAD		1555649	1513234	2776	37879			1760
2	SECONDARY SOFT LEAD		342091	340999	954	26			112
3	PURCHASED SECONDARY		76213	61758	11260	694	664		1837
4	FURNACE PRODUCTION		884131	858607	1915	21811			1798
5	INTRANSIT		49977	37656	3527	8402			392
6	HARD TO SMELT INVENTORY		359822	359822					—
7	INTERNAL DROSSES		372820	333256		39564			—
8	PLATES		1087456	1058531	1041	26811			1073
9	CRUSHED BATTERIES		645847	622106		23741			—
10	BATTERIES	—	93017	90400	93	2431			93
11	PRIMARY METALS		19546	—	223	4750			14573
12	CONVERSION INVENTORY		<140502>	<137467>	<141>	<2894>			—
13									
14	TOTAL		5346067	5138902	21648	163215	664		21638
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26	NOTE - 1. TOTAL COLUMN IS EQUAL TO TOTAL METAL POUNDS								
27	NOT GROSS POUNDS								
28									
29	2. TOTAL COLUMN INCLUDES [illegible] OTHER								
30	[illegible]								

Cleveland Inventory
Raw Materials as of July 1999

		Gross Weight	Metal Weight	Per Lb (Gross)	Total Value	Inventory Value
.00	Tin	223	223	$ 6.00	1,338 00	1,338 00
.00	Antimony	4750	4750	1.40	6650 00	6,650 00
.00	Arsenic - Metallic	2682	2682	9.50	25,479 00	25,479 00
.00	Cadmium	100	100	2.50	250 00	325 00
.00	Silver	29	29	131.22	3,805 38	3,807 65
.31	Copper	854	854	.80	683 20	768 60
.32	Manganese	4569	4569	.60	2,741 40	3,403 91
.33	Selenium	405	405	19.00	7,695 00	6,075 00
.34	Strontium	1283	1283	4.92	6,312 36	9,623 50
				$/lbs		
.00	Whole Batteries	161404	80213	17.00¢	27,436 68	30,666 76
.05	Plates	178258	130283	25.25¢	49,332 13	49,021 08
.25	Grids + Oxides	116255	78463	23.40¢	18,344 65	32,135 81
.00	Antimony Lead Dross	194947	154005	25.95¢	50,558 95	45,812 55
.00	Flue Dust	233205	137570	7.25¢	16,639 35	9,338 20
.00	Reverb. Slag	861752	680383	25.34¢	172,450 10	172,450 10
.321	Sn As-Sb-Pb 20-30% Sn	10975	10975	57.50	631,063	702,864	Pb 8123	50 4065	59 27144	65 109
.505	Sn Solder 5-10% Sn	6201	6201	60.50	542,488	625,511	5344	4465		
.590	Sn Solder 90-95% Sn	3880	3880	67.50	262,551	245,562	391	3589		
.611	Sn Solder Copper Nickel	290	290	2.00	580 00	580 00				
.612	Cadmium Zinc Alloy	1660	1660	.34	564 40	532 72				
.900	Pb Fil Sn Cags	4095	4095	.17	696 15	245 700	4095			
.321	Tin-Aluminum Alloy	9920	9920	3.12	30,950 40	29,861 40		9920		
					1,142,396 50	1,159,270 50				

Cleveland Inventory
Finished Goods Inventory as of July 1979

		Weight		Per lb	Total Value	Inventory Value
D	Ant Lead	834367	[illegible]	.55	15890125	28510462
L	Soft Lead	343512	[illegible]	.55	18893160	19379127
	Total				64783345	58189589
	Less Customer Reserve	112820			(5835825)	(42772)
	Total Cleveland				202805060	196095990

Cleveland Inventory
Work in Process as of July 1979

		Weight	Per lb	Total Value	Inventory Values				
AW	Ant. Lead in Kettles	376121	.53	199344.13	192621.16	PG	Lead	$40/ton	T/A/C
QD	Furnace Metal	92506	.49	45322.84	4008034				
				244672.02	232701.50				

SCHEDULE G

METAL INVENTORY

Metal Inventory 8/19/79 (To be adjusted to Physical)		$650,622
Less:	Customer Inventory 8/19/79 (To be adjusted)	(58,152)
Less:	Advance Payments Liability (To be adjusted)	(21,411)
		$571,059

9/6/79

CLEVELAND

METAL INVENTORY 8/19

TO BE ADJUSTED TO PHYSICAL

	Gross Wt.	Value Per Lb.	Total Value
Antimony	4,160	1.40	$ 5,824
Arsenic	6,682	2.10	14,032
Cadmium	100	2.50	250
Silver	29	131.22	3,805
Aluminum	4,569	.60	2,741
Selenium	405	12.00	4,860
Strontium	1,283	6.96	8,930
Tin	223	6.90	1,539
Copper	854	.80	683
Whole Batteries	6,498	.1700	1,105
Plates - All Types	893,859	.2634	235,442
Grids & Oxide	184,829	.3100	57,297
Antimony Lead Dross	279,498	.2729	76,275
Reverb Slag	440,464	.2595	114,300
Scrap As-Sb-Pb 25% Sb	7,256	.575	4,172
Scrap Solder 5-10% Sn	6,211 Sn 6.00	Pb .53	5,834
Sc Solder 90-95% Sn	3,880 Sn 6.25	Pb .55	22,591
Sc Solder Cu-Ni	291	2.00	582
Pipe for Se Charges	4,095	.49	2,007
Tin Aluminum Alloy	9,420	5.46	51,433
Furnace Metal	71,000	.52	36,920
Total Metal Inventory	1,925,606		$ 650,622

CLEVELAND
CUSTOMER INVENTORY
TO BE ADJUSTED

CUSTOMER	GROSS WT.	PER LB. GROSS	VALUE
GLOBE UNION			
Grids & Oxides	73,568	.3100	$ 22,806
GOULD			
Grids & Oxides	35,098	.3100	10,880
A/L Dross	30,262	.2729	8,258
Plates	61,534	.2634	16,208
	126,894		35,346
Estimated Customer Inventory Credit			$ 58,152

9/6/79

CLEVELAND

ADVANCE PAYMENTS LIABILITY

TO BE ADJUSTED

CUSTOMER	GROSS WT.	ADVANCE PAYMENT PER LB.	VALUE
GLOBE UNION			
Grids & Oxides	73,568	.10452	$ 7,689
GOULD			
Grids & Oxides	35,098	.10815	3,796
A/L Dross	30,262	.10816	3,273
Plates	61,534	.10812	6,653
	126,894		13,722

Estimated Advance Payments Credit $ 21,411

Exhibit 4

NL Metals

CONTRACTS OF $50,000 OR MORE

Estimated			
$100,000	Erie Coke & Chemical Co. P.O.Box P-1039 Birmingham, Michigan 48012	Foundry Coke	
	Kasle Iron Division 1103 LaGrange St. Toledo, OH 43603	Cast Iron $75,000	Shredded Steel $70,000
$100,000	Hickman, Williams & Co. Lakewood Center North Lakewood, OH 44107	Foundry Coke	
$75,000	Parkwood Iron & Metals 4917 Holyoke Avenue Cleveland, OH 44104	Cast Iron	
$85,000	Slesnick Iron & Metal 927 Warner Rd. Canton, OH	Cast Iron	
$50,000	Inland Refractories 10237 Berea Rd. Cleveland, OH 44111	Material & Service	
$50,000	REserve Electric 2090 E. 19 St. Cleveland, OH 44115	Material & Service	
$50,000	Rish Equipment 9255 Brookpark Rd. Cleveland, OH 44129	Material & Service	
$50,000	Buckeye Garment Rental Co. 3600 E. 93 St. Cleveland, OH 44105	Garment Rental	

August 7, 1979

Metal Division/NL Industries, Inc.
2850 West Third Street, Cleveland, Ohio 44113

Harold Hunn

Purchase Order

NL Metals

Metal Division, NL Industries, Inc.

Direct all invoices and correspondence to the above address

Direct Inquiries To	Arrival Date	Date
H. Hurry		1-18-79

17557

The above purchase order number must appear on all documents.

VENDOR

Erie Coke & Chemical Co.
115 W. Brown Street
Birmingham, Michigan 48011

Ship To: NL Industries, Inc., Metal Div.- Plant
Mail & PP:
Truck & UPS: NL INDUSTRIES, INC.
Rail: 2850 WEST THIRD STREET
CLEVELAND, OHIO 44113
Deliveries Accepted From To Mon-Thrs Friday

F.O.B.	Terms	Ship Via	Sales Tax Exempt / Exemption Number	Taxable
PAINESVILLE	NET 30	C.C.	☒	☐

Item	Quantity	Description	Price	Qty. Received
		To cover purchases Foundry Coke for the year 1979		

RECEIPT	Date Rec'd	Rec. Clerk	Via	Car No.	Pro No.	P'Pd.	Collect	Date Written
1								
2								
3								

Harold Hurry
Purchasing Manager
Metal Division
NL Industries, Inc.

Requisitioned By: Wm L Grake

Regional Mgr. Approval

Region Controller

Cd. Id.	Type	Sp. Hd.	Vendor Number	Reference Or Invoice Number	Due Date Mo.	Day	Yr.	Gross Amount Or Prepaid Check No.
1	5	8	7 8 9 10 11 12	13 14 15 16 17 18 19 20 21 22	23 24	25 26	27	28 29 30 31 32 33 34 35 36
2	1		2 3 2 3 3 9					

Location Codes Div.	Loc.	Cost Center Dept.	Sub. Dept.	General Ledger Account	Sub Account	Qty.	Quantity/Description	Distributed Amounts Debit Amount	Credit Amount
37 38	39 40	41 42 43	44 45 46	47 48 49 50 51	52 53 54 55	56 57	58 59 60 61 62 63 64 65 66 67 68 69 70 71	72 73 74 75 76 77 78 79 80	72 73 74 75 76 77 78 79 80
0	9	79	000	900	14710	0070	04		

RECEIVING REPORT—FINANCIAL SERVICES COPY

Purchase Order

NL Metals

Metal Division, NL Industries, Inc.

Direct all invoices and correspondence to the above address

Direct Inquiries To	Arrival Date	Date
H. Hurry		1979

17697

The above purchase order number must appear on all documents.

VENDOR

Lasle Iron Div.
1103 LaGrange St.
Toledo, Ohio 43605

Ship To: NL Industries, Inc., Metal Div.- Plant
Mail & PP:
Truck & UPS: 2850 W. 3rd. St.
Rail: Cleveland, Ohio 44113

Deliveries Accepted From To Mon-Thru Friday

F.O.B.	Terms	Ship Via	Sales Tax Exempt / Exemption Number	Taxable
Toledo	NET 30	T.T.	[X]	[ ]

Item	Quantity	Description	Price	Qty. Received
		To cover purchases of cast iron and shredded steel for the year 1979		

RECEIPT	Date Rec'd	Rec. Clerk	Via	Car No.	Pro No.	P'Pd.	Collect	Date Written
1								
2								
3								

Purchasing Manager
Metal Division
NL Industries, Inc.

Co.	Div.	Sp. Hd.	Vendor Number	Reference Or Invoice Number	Due Date Mo.	Day	Yr.	Gross Amount Or Prepaid Check No.
1	5	6	7 8 9 10 11 12	13 14 15 16 17 18 19 20 21 22	23 24	25 26	27	28 29 30 31 32 33 34 35 36
2	1		5 4 1 6 5 5					

Requisitioned By

Regional Mgr. Approval

Region Controller

Location Codes Div.	Loc.	Cost Center Dept.	Sub-Dept.	General Ledger Account	Sub Account	Qtn Y.D	Quantity/Description	Distributed Amounts Debit Amount	Credit Amount
37 38	39 40	41 42 43	44 45 46	47 48 49 50 51	52 53 54 55 56 57	58	59 60 61 62 63 64 65 66 67 68 69 70 71	72 73 74 75 76 77 78 79 80	72 73 74 75 76 77 78 79 80
0	9								

Order

NL Metals

Metal Division, NL Industries, Inc.

2850 W. Third St. - Cleveland, OH 44113

Direct all invoices and correspondence to the above address

Direct Inquiries To	Arrival Date	Date
H. Hurry		1979

17710

The above purchase order number must appear on all documents.

VENDOR

Hickman, Williams & Co.
Lakewood Center North
Lakewood, OH 44107

Ship To: NL Industries, Inc., Metal Div.- Plant
Mail & PP:
Truck & UPS: 2850 W. Third St.
Rail: Cleveland, OH 44113

Deliveries Accepted From To Mon-Thu Friday

F.O.B.	Terms	Ship Via		
Detroit	Net	Wills Trucking	[X] Sales Tax Exempt Exemption Number	[ ] Taxable

Item	Quantity	Description	Price	Qty. Received
		To cover purchases of foundry coke for the year 1979		

RECEIPT	Date Rec'd	Rec. Clerk	Via	Car No.	Pro No.	P'Pd.	Collect	Date Written
1								
2								
3								

Harold Hurry
Purchasing Manager
Metal Division
NL Industries, Inc.

Cd. Id.	Trans.	Sp. Hd.	Vendor Number	Reference Or Invoice Number	Due Date Mo.	Day	Yr.	Gross Amount Or Prepaid Check No.
1	5	6	7 8 9 10 11 12	13 14 15 16 17 18 19 20 21 22	23 24	25 26	27	28 29 30 31 32 33 34 35 36
2	1		076726					

Requisitioned By
Wm L Crake
Regional Mgr. Approval

Region Controller

Location Codes: Div.	Loc.	Cost Center: Dept.	Sub. Dept.	General Ledger Account	Sub Account	Qty. Y.D.	Quantity/Description	Distributed Amounts: Debit Amount	Credit Amount
37 38	39 40	41 42 43	44 45 46	47 48 49 50 51	52 53 54 55 56 57	58	59 60 61 62 63 64 65 66 67 68 69 70 71	72 73 74 75 76 77 78 79 80	72 73 74 75 76 77 78 79 80
09	79	000	000	14710	007004				

RECEIVING REPORT—FINANCIAL SERVICES COPY

Purchase Order

NL Metals

Metal Division, NL Industries, Inc.

17698

The above purchase order number must appear on all documents.

Direct all invoices and correspondence to the above address

Direct Inquiries To	Arrival Date	Date
		1979

VENDOR

Parkwood Iron & Metal Co.
4917 Holyoke Ave.
Cleveland, OH 44104

Ship To: NL Industries, Inc., Metal Div.
Mail & PP:
Truck & UPS: 2850 W. 3rd. St.
Rail: Cleveland, OHIO 44113

Plan

Deliveries Accepted From To Mon-Thu Friday

F.O.B.	Terms	Ship Via	Sales Tax Exempt / Exemption Number	Taxable
Cleve.	NET 30	TT		

Item	Quantity	Description	Price	Qty. Received
		To cover purchases of cast iron as needed for the year 1979		

RECEIPT	Date Rec'd	Rec. Clerk	Via	Car No.	Pro No.	P'Pd.	Collect	Date Written
1								
2								
3								

Harold Hiver
Purchasing Manager
Metal Division
NL Industries, Inc.

Requisitioned By
Wm L Crabe
Regional Mgr. Approval

Region Controller

Cd. Id.	Trans	Sp. Hd.	Vendor Number	Reference Or Invoice Number	Due Date Mo.	Day	Yr.	Gross Amount Or Prepaid Check No.
1	5	6	7 8 9 10 11 12	13 14 15 16 17 18 19 20 21 22	23 24	25 26	27	28 29 30 31 32 33 34 35 36
2	1		562394					

Location Codes Div.	Loc.	Cost Center Dept.	Sub. Dept.	General Ledger Account	Sub Account	QTY.	Quantity/Description	Distributed Amounts Debit Amount	Credit Amount
37 38	39 40	41 42 43	44 45 46	47 48 49 50 51	52 53 54 55 56 57	58	59 60 61 62 63 64 65 66 67 68 69 70 71	72 73 74 75 76 77 78 79 80	72 73 74 75 76 77 78 79 80
09	79	000	000	14710	007001				

RECEIVING REPORT—FINANCIAL SERVICES COPY

Purchase Order

NL Metals

Metal Division, NL Industries, Inc.

17699

The above purchase order number must appear on all documents.

Direct all invoices and correspondence to the above address

Direct Inquiries To	Arrival Date	Date
H. Hurry		1979

VENDOR

Slesnick Iron & Metal Co. [redacted]
927 Warner Rd.
Canton, Ohio

Ship To: NL Industries, Inc., Metal Div.
Mail & PP:
Truck & UPS: 2850 W. 3rd. St.
Rail: Cleveland, OH 44113

Plan

Deliveries Accepted From To Mon-Th Friday

F.O.B.	Terms	Ship Via		
Cleve.		TT	[X] Sales Tax Exempt Exemption Number	[ ] Taxable

Item	Quantity	Description	Price	Qty. Receive
		To cover purchases of cast iron for the year 1979.		

RECEIPT	Date Rec'd	Rec. Clerk	Via	Car No.	Pro No.	P'Pd.	Collect	Date Written
1								
2								
3								

Harold Hurr
Purchasing Manager
Metal Division
NL Industries, Inc.

Cd. Id.	Trans.	Sp. Hd.	Vendor Number	Reference Or Invoice Number	Due Date Mo.	Day	Yr.	Gross Amount Or Prepaid Check No.
1	5	6	7 8 9 10 11 12	13 14 15 16 17 18 19 20 21 22	23 24	25 26	27	28 29 30 31 32 33 34 35 36
2	1		8577732					

Requisitioned By
Wm L Crake
Regional Mgr. Approval

Region Controller

Location Codes Div.	Loc.	Cost Center Dept.	Sub. Dept.	General Ledger Account	Sub Account	QTY.	Quantity/Description	Distributed Amounts Debit Amount	Credit Amount
37 38	39 40	41 42 43	44 45 46	47 48 49 50 51	52 53 54 55 56 57	58	59 60 61 62 63 64 65 66 67 68 69 70 71	72 73 74 75 76 77 78 79 80	72 73 74 75 76 77 78 79 80
09	79	000	000	14710	007001				

RECEIVING REPORT—FINANCIAL SERVICES COPY

Purchase Order

NL Metals

Metal Division, NL Industries, Inc.

17700
~~10070~~

The above purchase order number must appear on all documents.

Direct all invoices and correspondence to the above address

Direct Inquiries To	Arrival Date	Date
H. Hurry		1979

VENDOR

Inland Refractories
12907 Berea Rd.
Cleveland, Ohio 44111

Ship To: NL Industries, Inc., Metal Div.
Mail & PP: 2850 W. 3rd. St.
Truck & UPS: Cleveland, OH 44113
Rail:

Plan

Deliveries Accepted From To Mon-Thr Friday

F.O.B.	Terms	Ship Via	Sales Tax Exempt / Exemption Number	Taxable
	Net 30 Day	T.T.		

Item	Quantity	Description	Price	Qty. Received
		To cover purchases for the year 1979.		

RECEIPT	Date Rec'd	Rec. Clerk	Via	Car No.	Pro No.	P'Pd.	Collect	Date Written
1								
2								
3								

Harold Hurry
Purchasing Manager
Metal Division
NL Industries, Inc.

Requisitioned By

Regional Mgr. Approval

Region Controller

Cd. Id.	T.O.S.	Sp. Hd.	Vendor Number	Reference Or Invoice Number	Due Date Mo.	Day	Yr.	Gross Amount Or Prepaid Check No.
1	5	6	7 8 9 10 11 12	13 14 15 16 17 18 19 20 21 22	23 24	25 26	27	28 29 30 31 32 33 34 35 36
2	1		581648					

Location Codes Div.	Loc.	Cost Center Dept.	Sub-Dept.	General Ledger Account	Sub Account	Q I T N Y.D	Quantity/Description	Distributed Amounts Debit Amount	Credit Amount
37 38	39 40	41 42 43	44 45 46	47 48 49 50 51	52 53 54 55 56 57	58	59 60 61 62 63 64 65 66 67 68 69 70 71	72 73 74 75 76 77 78 79 80	72 73 74 75 76 77 78 79 80
0 9									

RECEIVING REPORT—FINANCIAL SERVICES COPY

Purchase Order

NL Metals

Metal Division, NL Industries, Inc.

Direct all invoices and correspondence to the above address

Direct Inquiries To	Arrival Date	Date
		1979

17641

The above purchase order number must appear on all documents.

VENDOR

Reserve Electric Co.
2090 E. 79 Street
Cleveland, Ohio 44113

Ship To: NL Industries, Inc., Metal Div.-
Mail & PP:
Truck & UPS:
Rail: 2850 W. 3rd. St.
Cleveland, OH 44113

Pla

Deliveries Accepted From To Mon-F Friday

F.O.B.	Terms	Ship Via	Sales Tax Exempt / Exemption Number	Taxable
DEST.	NET 30	T.T.		✓

Item	Quantity	Description	Price	Qty. Rec'd
		To cover purchases for the year 1979		

RECEIPT	Date Rec'd	Rec. Clerk	Via	Car No.	Pro No.	P'Pd.	Collect	Date Written
1								
2								
3								

Harold Hue
Purchasing Manager
Metal Division
NL Industries, Inc.

Cd. Id.	Trans	Sp. Hd.	Vendor Number	Reference Or Invoice Number	Due Date Mo.	Day	Yr.	Gross Amount Or Prepaid Check No.
1	5	6	7–12	13–22	23–24	25–26	27	28–36
2	1		562587					

Requisitioned By: Wm L. Crafer

Regional Mgr. Approval

Region Controller

Location Codes Div. (37–38)	Loc. (39–40)	Cost Center Dept. (41–46)	Sub. Dept.	General Ledger Account (47–51)	Sub Account (52–55)	(56–57)	Qty (58)	Quantity/Description (59–71)	Distributed Amounts Debit Amount (72–80)	Credit Amount (72–80)
09	19									

RECEIVING REPORT—FINANCIAL SERVICES COPY

Purchase Order

NL Metals

Metal Division, NL Industries, Inc.

2850 W. Third St.-Cleveland, OH 44113

17554

The above purchase order number must appear on all documents.

Direct all invoices and correspondence to the above address

Direct Inquiries To	Arrival Date	Date
H.Hurry		1979

VENDOR

Buckeye Garment Rental Co.
3600 E. 93rd St.
Cleveland, OH 44105

Ship To: NL Industries, Inc., Metal Div.- Plar
Mail & PP: 2850 W. Third St.
Truck & UPS: Cleveland, OH 44113
Rail:

Deliveries Accepted From To Mon-Th Friday

F.O.B.	Terms	Ship Via	Sales Tax Exempt / Exemption Number	Taxable
	Net 10 EOM	T.T.		

Item	Quantity	Description	Price	Qty. Receive
		Garment rental for the year 1979		

RECEIPT	Date Rec'd	Rec. Clerk	Via	Car No.	Pro No.	P'Pd.	Collect	Date Written
1								
2								
3								

Purchasing Manager
Metal Division
NL Industries, Inc.

Requisitioned By

Regional Mgr. Approval

Region Controller

Cd. Id.	Trans	Sp. Hd.	Vendor Number	Reference Or Invoice Number	Due Date Mo.	Day	Yr.	Gross Amount Or Prepaid Check No.
1	5	6	7 8 9 10 11 12	13 14 15 16 17 18 19 20 21 22	23 24	25 26	27	28 29 30 31 32 33 34 35 36
2	1		346427					

Location Codes Div.	Loc.	Cost Center Dept.	Sub. Dept.	General Ledger Account	Sub Account	QTY.D	Quantity/Description	Distributed Amounts Debit Amount	Credit Amount
37 38	39 40	41 42 43	44 45 46	47 48 49 50 51	52 53 54 55 56 57	58	59 60 61 62 63 64 65 66 67 68 69 70 71	72 73 74 75 76 77 78 79 80	72 73 74 75 76 77 78 79 80
09	79	400	000	45310	3820				

RECEIVING REPORT—FINANCIAL SERVICES COPY

Source File: Master Metals
Box: LGL 1373

METALS DIVISION
CLEVELAND PLANT

PURCHASE CONTRACTS OF $50,000 OR MORE

Purchase Order No.				Estimated Value
17557	Erie Coke & Chemical Co. P. O. Box P-1039 Birmingham, Michigan 48012		Foundry Coke	$ 100,000
17697	Kasle Iron Division 1103 LaGrange St. Toledo, OH 43603	Cast Iron $75,000	Shredded Steel $70,000	145,000
17710	Hickman, Williams & Co. Lakewood Center North Lakewood, OH 44107		Foundry Coke	100,000
17698	Parkwood Iron & Metals 4917 Holyoke Avenue Cleveland, OH 44104		Cast Iron	75,000
17699	Slesnick Iron & Metal 927 Warner Rd. Canton, OH		Cast Iron	85,000
17700	Inland Refractories 10237 Berea Rd. Cleveland, OH 44111		Material & Service	50,000
17641	Reserve Electric 2090 E. 19 St. Cleveland, OH 44115		Material & Service	50,000
*	Rish Equipment 9255 Brookpark Rd. Cleveland, OH 44129		Material & Service	50,000
17554	Buckeye Garment Rental Co. 3600 E. 93 St. Cleveland, OH 44105		Garment Rental	50,000

* Copy of Purchase Order to be supplied at later date.

Purchase Order

NL Metals

Metal Division, NL Industries, Inc.

Direct all invoices and correspondence to the above address

Direct Inquiries To	Arrival Date	Date
H. Hurry		1-18-79

17557

The above purchase order number must appear on all documents.

VENDOR

Erie Coke & Chemical Co.
115 W. Brown Street
Birmingham, Michigan 48011

Ship To: NL Industries, Inc., Metal Div.-
Mail & PP:
Truck & UPS: NL INDUSTRIES, INC.
Rail: 2800 WEST THIRD STREET
CLEVELAND, OHIO 44113
Deliveries Accepted From To Mon-Th Friday

Plan

F.O.B.	Terms	Ship Via	
PAINESVILLE	NET 30	C.C.	☒ Sales Tax Exempt Exemption Number ☐ Taxable

Item	Quantity	Description	Price	Qty. Received
		To cover purchases Foundry Coke for the year 1979		

RECEIPT	Date Rec'd	Rec. Clerk	Via	Car No.	Pro No.	P'Pd.	Collect	Date Written
1								
2								
3								

Harold Hurr
Purchasing Manager
Metal Division
NL Industries, Inc.

Co. Id.	Type	Sp. Hd.	Vendor Number	Reference Or Invoice Number	Due Date Mo.	Day	Yr.	Gross Amount Or Prepaid Check No.
1	5	6	7 8 9 10 11 12	13 14 15 16 17 18 19 20 21 22	23 24	25 26	27	28 29 30 31 32 33 34 35 36
2	1		2 3 2 3 3 9					

Requisitioned By
Wm L Grahe
Regional Mgr. Approval

Region Controller

Location Code Div.	Loc.	Cost Center Dept.	Sub. Dept.	General Ledger Account	Sub Account	O I T N Y D	Quantity/Description	Distributed Amounts Debit Amount	Credit Amount
37 38	39 40	41 42 43	44 45 46	47 48 49 50 51	52 53 54 55	56 57	58 59 60 61 62 63 64 65 66 67 68 69 70 71	72 73 74 75 76 77 78 79 80	72 73 74 75 76 77 78 79 80
0	9	79	000	900	14710	0070	04		

RECEIVING REPORT - FINANCIAL SERVICES COPY

Purchase Order

NL Metals

Metal Division, NL Industries, Inc.

17697

The above purchase order number must appear on all documents.

Direct all invoices and correspondence to the above address

Direct Inquiries To	Arrival Date	Date
H. Hurry		1979

VENDOR
- Kasle Iron Div.
- 1103 LaGrange St.
- Toledo, Ohio 43603

Ship To: NL Industries, Inc., Metal Div.- Plant
Mail & PP:
Truck & UPS: 2850 W. 3rd. St.
Rail: Cleveland, Ohio 44113

Deliveries Accepted From To Mon-Thru Friday

F.O.B.	Terms	Ship Via	Sales Tax Exempt / Exemption Number	Taxable
Toledo	NET 30	T.T.	[X]	[ ]

Item	Quantity	Description	Price	Qty. Received
		To cover purchsses of cast iron and shredded steel for the year 1979		

	Date Rec'd	Rec. Clerk	Via	Car No.	Pro No.	P'Pd.	Collect	Date Written
RECEIPT 1								
2								
3								

Harold Hurry
Purchasing Manager
Metal Division
NL Industries, Inc.

Requisitioned By
Wm L Crake
Regional Mgr. Approval

Region Controller

Co.	Sp. Hd.	Vendor Number	Reference Or Invoice Number	Due Date Mo. Day Yr.	Gross Amount Or Prepaid Check No.
1	5	6 7 8 9 10 11 12	13 14 15 16 17 18 19 20 21 22	23 24 25 26 27	28 29 30 31 32 33 34 35 36
2	1	561655			

Location Div.	Location Loc.	Cost Center Dept.	Cost Center Sub. Dept.	General Ledger Account	Sub Account	Q I T N Y D	Quantity/Description	Distributed Amounts Debit Amount	Distributed Amounts Credit Amount
37 38	39 40	41 42 43	44 45 46	47 48 49 50 51	52 53 54 55 56 57	58	59 60 61 62 63 64 65 66 67 68 69 70 71	72 73 74 75 76 77 78 79 80	72 73 74 75 76 77 78 79 80
0 9									

Order

NL Metals

Metal Division, NL Industries, Inc.

2850 W. Third St. - Cleveland, OH 44113

Direct all invoices and correspondence to the above address

Direct Inquiries To	Arrival Date	Date
H. Harry		1979

17710

The above purchase order number must appear on all documents.

VENDOR

Hickman, Williams & Co.
Lakewood Center North
Lakewood, OH 44107

Ship To: NL Industries, Inc., Metal Div.- Plant
Mail & PP:
Truck & UPS: 2850 W. Third St.
Rail: Cleveland, OH 44113

Deliveries Accepted From To Mon-Thru Friday

F.O.B.	Terms	Ship Via	Sales Tax Exempt / Exemption Number	Taxable
Detroit	Net	Mills Trucking	[X]	[ ]

Item	Quantity	Description	Price	Qty. Received
		To cover purchases of foundry coke for the year 1979		

RECEIPT	Date Rec'd	Rec. Clerk	Via	Car No.	Pro No.	P'Pd.	Collect	Date Written
1								
2								
3								

Harold Hue
Purchasing Manager
Metal Division
NL Industries, Inc.

Requisitioned By
Wm L Crake
Regional Mgr. Approval
Region Controller

Cd Id.	Trans	Sp. Hd.	Vendor Number	Reference Or Invoice Number	Due Date Mo.	Day	Yr.	Gross Amount Or Prepaid Check No.
1	5	6	7 8 9 10 11 12	13 14 15 16 17 18 19 20 21 22	23 24	25 26	27	28 29 30 31 32 33 34 35 36
2	1		076726					

Location Codes Div.	Loc.	Cost Center Dept.	Sub. Dept.	General Ledger Account	Sub Account	Q I T N Y D	Quantity/Description	Distributed Amounts Debit Amount	Credit Amount
37 38	39 40	41 42 43	44 45 46	47 48 49 50 51	52 53 54 55 56 57	58	59 60 61 62 63 64 65 66 67 68 69 70 71	72 73 74 75 76 77 78 79 80	72 73 74 75 76 77 78 79 80
09	79	000	000	14710	007004				

RECEIVING REPORT—FINANCIAL SERVICES COPY

Order

NL Metals

Metal Division, NL Industries, Inc.

Direct all invoices and correspondence to the above address

Direct Inquiries To	Arrival Date	Date
		1979

17698

The above purchase order number must appear on all documents.

VENDOR

Parkwood Iron & Metal Co.
4917 Helyoke Ave.
Cleveland, OH 44104

Ship To: NL Industries, Inc., Metal Div.- Plant
Mail & PP:
Truck & UPS: 2850 W. 3rd. St.
Rail: Cleveland, OHIO 44113

Deliveries Accepted From To Mon-Thru Friday

F.O.B.	Terms	Ship Via	Sales Tax Exempt / Exemption Number	Taxable
Cleve.	NET 30	TT	[X]	[ ]

Item	Quantity	Description	Price	Qty. Received
		To cover purchases of cast iron as needed for the year 1979		

RECEIPT	Date Rec'd	Rec. Clerk	Via	Car No.	Pro No.	P'Pd.	Collect	Date Written
1								
2								
3								

Harold Hurr
Purchasing Manager
Metal Division
NL Industries, Inc.

Cd. Id.	Trans	Sp. Hd.	Vendor Number	Reference Or Invoice Number	Due Date Mo.	Day	Yr.	Gross Amount Or Prepaid Check No.
1	5	6	7 8 9 10 11 12	13 14 15 16 17 18 19 20 21 22	23 24	25 26	27	28 29 30 31 32 33 34 35 36
2	1		562394					

Requisitioned By
Wm L Crake
Regional Mgr. Approval
Region Controller

Location Codes Div.	Loc.	Cost Center Dept.	Sub. Dept.	General Ledger Account	Sub Account	Q I N Y D	Quantity/Description	Distributed Amounts Debit Amount	Credit Amount
37 38	39 40	41 42 43	44 45 46	47 48 49 50 51	52 53 54 55 56 57	58	59 60 61 62 63 64 65 66 67 68 69 70 71	72 73 74 75 76 77 78 79 80	72 73 74 75 76 77 78 79 80
09	79	000	000	14710	007001				

RECEIVING REPORT—FINANCIAL SERVICES COPY

Purchase Order

NL Metals

Metal Division, NL Industries, Inc.

17699

The above purchase order number must appear on all documents.

Direct all invoices and correspondence to the above address

Direct Inquiries To	Arrival Date	Date
H. Harry		1979

VENDOR

Slesnick Iron & Metal Co. XXXXXXXXXXXXX.
927 Warner Rd.
Canton, Ohio

Ship To: NL Industries, Inc., Metal Div.- Plant
Mail & PP:
Truck & UPS: 2850 W. 3rd. St.
Rail: Cleveland, OH 44113

Deliveries Accepted From To Mon-Thru Friday

F.O.B.	Terms	Ship Via	Sales Tax Exempt / Exemption Number	Taxable
Cleve.		TT	[X]	[ ]

Item	Quantity	Description	Price	Qty. Received
		To cover purchases of cast iron for the year 1979.		

RECEIPT	Date Rec'd	Rec. Clerk	Via	Car No.	Pro No.	P'Pd.	Collect	Date Written
1								
2								
3								

Harold Hurr
Purchasing Manager
Metal Division
NL Industries, Inc.

Cd.	Trans.	Sp. Hd.	Vendor Number	Reference Or Invoice Number	Due Date Mo.	Day	Yr.	Gross Amount Or Prepaid Check No.
1	5	6	7 8 9 10 11 12	13 14 15 16 17 18 19 20 21 22	23 24	25 26	27	28 29 30 31 32 33 34 35 36
2	1		857732					

Requisitioned By
Wm L Crake
Regional Mgr. Approval
Region Controller

Location Codes Div.	Loc.	Cost Center Dept.	Sub. Dept.	General Ledger Account	Sub Account	Q I T N Y D	Quantity/Description	Distributed Amounts Debit Amount	Credit Amount
37 38	39 40	41 42 43	44 45 46	47 48 49 50 51	52 53 54 55 56 57	58	59 60 61 62 63 64 65 66 67 68 69 70 71	72 73 74 75 76 77 78 79 80	72 73 74 75 76 77 78 79 80
09	79	000	000	14710	007001				

RECEIVING REPORT FINANCIAL SERVICES COPY

Order — NL Metals

Direct all invoices and correspondence to the above address

Direct Inquiries To	Arrival Date	Date
H. Hurry		1979

17700
~~10070~~

The above purchase order number must appear on all documents.

Inland Refractories
12907 Bores Rd.
Cleveland, Ohio 44111

Ship To: NL Industries, Inc., Metal Div.
Mail & PP: 2850 W. 3rd. St.
Truck & UPS: Cleveland, OH 44113
Rail:

Plant

Deliveries Accepted From To Mon-Thru Friday

F.O.B.	Terms	Ship Via	Sales Tax Exempt / Exemption Number	Taxable
	NET 30 DAY	T.T.		

Item	Quantity	Description	Price	Qty. Received
		To cover purchases for the year 1979.		

RECEIPT	Date Rec'd	Rec. Clerk	Via	Car No.	Pro No.	P'Pd.	Collect	Date Written
1								
2								
3								

Harold Hurr
Purchasing Manager
Metal Division
NL Industries, Inc.

Requisitioned By

Regional Mgr. Approval

Region Controller

Cd. Id.	T & S	Sp. Hd.	Vendor Number	Reference Or Invoice Number	Due Date Mo.	Day	Yr.	Gross Amount Or Prepaid Check No.
1	5	6	7 8 9 10 11 12	13 14 15 16 17 18 19 20 21 22	23 24	25 26	27	28 29 30 31 32 33 34 35 36
2	1		5 8 1 1 6 4 8					

Location Codes Div.	Loc.	Cost Center Dept.	Sub. Dept.	General Ledger Account	Sub Account	O I T N Y.D	Quantity/Description	Distributed Amounts Debit Amount	Credit Amount
37 38	39 40	41 42 43	44 45 46	47 48 49 50 51	52 53 54 55 56 57	58	59 60 61 62 63 64 65 66 67 68 69 70 71	72 73 74 75 76 77 78 79 80	72 73 74 75 76 77 78 79 80
0 9									

RECEIVING REPORT—FINANCIAL SERVICES COPY

Order

NL Metals

Metal Division, NL Industries, Inc.

Direct all invoices and correspondence to the above address

Direct Inquiries To	Arrival Date	Date
		1979

17641

The above purchase order number must appear on all documents.

VENDOR

Reserve Electric Co.
2090 E. 19 Street
Cleveland, Ohio 44113

Ship To: NL Industries, Inc., Metal Div.-
Mail & PP:
Truck & UPS:
Rail: 2850 W. 3rd. St.
Cleveland, OH 44113

Deliveries Accepted From To Mon-Friday

F.O.B.	Terms	Ship Via	
DEST.	NET 30	T.T.	☐ Sales Tax Exempt Exemption Number ☑ Taxable

Item	Quantity	Description	Price	Qty. Receiv
		To cover purchases for the year 1979		

		Date Rec'd	Rec. Clerk	Via	Car No.	Pro No.	P'Pd.	Collect	Date Written
RECEIPT	1								
	2								
	3								

Harold Hue
Purchasing Manager
Metal Division
NL Industries, Inc.

Cd. Id.	Type	Sp. Hd.	Vendor Number	Reference Or Invoice Number	Due Date Mo.	Due Date Day	Due Date Yr.	Gross Amount Or Prepaid Check No.
1	5	6	7 8 9 10 11 12	13 14 15 16 17 18 19 20 21 22	23 24	25 26	27	28 29 30 31 32 33 34 35 36
2	1		562587					

Requisitioned By
Wm L. Crafe
Regional Mgr. Approval
Region Controller

Location Code Div.	Loc.	Cost Center Dept.	Sub. Dept.	General Ledger Account	Sub Account	Quantity/Description	Distributed Amounts Debit Amount	Credit Amount
37 38	39 40	41 42 43	44 45 46	47 48 49 50 51	52 53 54 55 56 57 58	59 60 61 62 63 64 65 66 67 68 69 70 71	72 73 74 75 76 77 78 79 80	72 73 74 75 76 77 78 79 80
0 9	79							

RECEIVING REPORT FINANCIAL SERVICES COPY

Purchase Order

NL Metals

Metal Division, NL Industries, Inc.

2850 W. Third St.-Cleveland, OH 44113

17554

The above purchase order number must appear on all documents.

Direct all invoices and correspondence to the above address

Direct Inquiries To	Arrival Date	Date
H. Harry		1979

VENDOR

Buckeye Garment Rental Co.
3600 E. 93rd St.
Cleveland, OH 44105

Ship To: NL Industries, Inc., Metal Div.- Plan
Mail & PP: 2850 W. Third St.
Truck & UPS: Cleveland, OH 44113
Rail:

Deliveries Accepted From To Mon-Th Friday

F.O.B.	Terms	Ship Via	Sales Tax Exempt / Exemption Number	Taxable
	Net 10 EOM	T.T.		

Item	Quantity	Description	Price	Qty. Receive
		Garment rental for the year 1979		

RECEIPT	Date Rec'd	Rec. Clerk	Via	Car No.	Pro No.	P'Pd.	Collect	Date Written
1								
2								
3								

Harold Hue
Purchasing Manager
Metal Division
NL Industries, Inc.

Cd. Id.	Trans.	Sp. Hd.	Vendor Number	Reference Or Invoice Number	Due Date Mo.	Day	Yr.	Gross Amount Or Prepaid Check No.
1	5	6	7 8 9 10 11 12	13 14 15 16 17 18 19 20 21 22	23 24	25 26	27	28 29 30 31 32 33 34 35 36
2	1		346427					

Requisitioned By
Wm L Crake
Regional Mgr. Approval

Region Controller

Location Codes Div.	Loc.	Cost Center Dept.	Sub. Dept.	General Ledger Account	Sub Account	Q I T N Y D	Quantity/Description	Distributed Amounts Debit Amount	Credit Amount
37 38	39 40	41 42 43	44 45 46	47 48 49 50 51	52 53 54 55 56 57	58	59 60 61 62 63 64 65 66 67 68 69 70 71	72 73 74 75 76 77 78 79 80	72 73 74 75 76 77 78 79 80
09	79	400	000	45310	3820				

Exhibit 5

ESB

SUPPLY AGREEMENT

This Agreement dated as of the 24th day of December, 1977 between N L Industries, Inc., a New Jersey Corporation acting through its Metal Division (NL) and ESB Ray-o-vac Management Corporation, a Delaware Corporation (ESB).

NL AND ESB agree that NL shall supply and ESB shall accept and pay for a minimum of 17,000 tons and a maximum of 23,000 tons of lead antimony alloy and lead calcium alloys (Finished Products) on the terms and conditions set forth below:

A. Purchase and Sale of Finished Products. ESB shall purchase and NL shall sell to ESB a minimum of 4,250 tons and a maximum of 6,000 tons of Finished Products at NL's published price for the month of shipment.

B. Tolling of Scrap. ESB shall supply scrap to NL and NL shall toll scrap for ESB in sufficient quantities to produce a minimum of 12,750 tons and a maximum of 17,000 tons of Finished Products, provided that the quantity of Finished Products supplied by tolling scrap shall not exceed 75% of the total of Finished Products supplied pursuant to this Agreement.

1. Scrap and Recoverable Content. ESB shall supply to NL scrap material containing lead, antimony, tin and arsenic. The scrap shall consist of scrap whole starting, lighting and ignition storage batteries and plant scrap. Returnable content of scrap shall be 95% of the scrap's metal content, determined as set forth below:

a) Whole scrap batteries shall be deemed to assay by gross weight 49.59 percent metal content of which 97.45 percent shall be deemed to be lead, 2.35 per-

cent antimony, .1 percent tin, and .1 percent arsenic. NL shall have the right to adjust and modify the above percentage yields based on the battery sampling procedure and assay attached as Exhibit A, upon giving 30 days prior written notice to ESB.

b) The lead, antimony, tin and arsenic content of plant scrap shall be determined by NL in accordance with the assay procedure, attached as Exhibit B. However, in no event shall ESB be entitled to receive credit for tin and arsenic contained in plant scrap as a percentage of the gross weight of returnable metal content in excess of .1 percent tin and .1 percent arsenic. ESB shall segregate and mark all plant scrap in accordance with the categories described in Exhibit E. Improperly segregated and marked plant scrap may be rejected by NL or be assigned a nominal metal content based on the lowest assay values, at NL's option. NL's assay results shall be conclusive upon the parties unless shown to be in error by the third party assayer named in Exhibit D.

2. Delivery of Scrap. ESB shall deliver scrap F.O.B. NL plants and other locations set forth in Exhibit C to this Agreement for tolling or processing. All deliveries shall be made during normal business hours. NL shall use its best efforts to promptly unload trucks, railroad cars and barges. However, ESB shall hold NL harmless from any demurrage charges which NL may incur as a result of any delay in unloading.

When scrap is delivered to any location designated by NL, other than an NL plant, ESB shall notify NL in writing of the quantity and type of scrap delivered within 5 calendar days from the date of delivery.

Failure to notify NL within the prescribed time shall constitute a waiver of all claims, actions and causes of actions which ESB may have against NL for the scrap and ESB's sole remedy shall be against the operator of the location to which the scrap was delivered.

The minimum and maximum quantities of scrap to be applied to each location in terms of Finished Product to be shipped from each location, are set forth in Exhibit C opposite each NL plant and other location. NL reserves the right to modify Exhibit C by adding or deleting locations and by increasing or decreasing quantities for any location upon giving written notice to ESB.

3. Scrap to be Tolled into Bullion. All scrap delivered by ESB to NL shall be deemed to have been immediately tolled at the plant where the scrap was delivered into a bullion containing, by weight, 97.45 percent lead (including impurities), 2.35 percent antimony, .1 percent tin ~~and~~ .1 percent arsenic (Bullion). The metal composition of Bullion may be changed by NL upon giving written notice to ESB based on battery sampling and assays performed pursuant to Exhibit A. All further tolling shall be from Bullion to alloys as specified in writing by ESB.

To meet the metalic specifications of Bullion, NL shall add required quantities of lead, antimony, tin and arsenic.

In this regard, NL shall first apply, to the extent available, quantities of antimony, tin and arsenic removed from Bullion in the production of alloys and softening of lead at that plant for ESB's account. ESB shall pay for all other additions of metals in quantities in excess of those credited to ESB from the production of alloy and softening of lead at that plant in accordance with Section B.7. of this Agreement. ESB shall not be entitled to receive antimony, tin or arsenic except as a component of a lead alloy and NL shall not be required to deliver or pay for any unused quantities of antimony, tin or arsenic credited to ESB in connection with processing of Bullion into alloys or softening of lead.

4. Delivery of Finished Products. NL shall deliver Finished Products to ESB F.O.B. the NL plant to which scrap was delivered and Bullion was credited to ESB. ESB shall be entitled to transfer Bullion credited to ESB to other NL plants. ESB shall pay NL $20.00 per ton for each ton of Bullion transferred from one NL plant to another.

5. Inspection and Assay of Finished Products. ESB shall inspect and assay each shipment of Finished Products promptly and shall notify NL in writing of any defects in Finished Products of differences between the assay results obtained by ESB and the specifications for the Finished Products with respect to each shipment. If ESB shall not have notified NL of any defect or difference within sixty days from the date that a shipment of Finished Products is delivered F.O.B NL's plant or prior to use of the Finished Products by ESB, whichever shall occur first, the Finished

Products shall be deemed for all purposes to have been in conformity with all specifications.

In the event of any discrepancy, which has been the subject of notification pursuant to this section, a third party assayer agreed upon by ESB and NL and named on Exhibit D, shall assay NL's retention sample of the Finished Products involved using established assay procedures and methods. The results of the assay performed by the third party shall be binding on ESB and NL.

6. Tolling Fee. As compensation for the work and services performed pursuant to this Agreement ESB shall pay NL the following base processing and smelting fees:

Whole Scrap Batteries	$245/ton of returnable metal content of batteries delivered to NL.
Plant Scrap	$175/ton of scrap (gross weight) delivered to NL

In addition to the base fees set forth above, ESB shall pay NL the following fees for the services specified below:

Production of Calcium lead.	$30/ton of alloy produced.
Removal of antimony and other metals and minerals to produce soft lead.	$90.00/ton of soft lead produced.

Tolling fees for alloys not shown on Exhibit C shall be separately agreed upon by the parties.

If ESB requests that the quantity of Finished Products supplied by tolling scrap exceed 75%, NL and ESB shall negotiate the charges for quantities exceeding 75%.

Base processing and smelting fees set forth in this Section shall be adjusted quarterly as set forth below to reflect

increases in the cost of the following fuels and materials over the average price for the period January 1, 1977 to December 31, 1977:

Coke. For each change of one point in the Wholesale Price Index published by the United States Department of Labor, Index 1967 = 100 (WPI), Code 052 for coke an increase or decrease of $.055/ton.

Natural Gas. For each change of one point in the WPI, Code 0531-0101 for natural gas an increase or decrease of $.01/ton.

Liquified Petroleum Gas. For each change of one point in the WPI for Code 0532-0104.01 an increase or decrease of $.02/ton.

No. 2 Fuel Oil. For each change of $1.00/barrel in average quotations for a) east coast - New York; b) Minnesota (Twin Cities South); and c) Indianapolis as published in Oil Daily, an increase or decrease of $.035/ton.

No. 1 Heavy Melting Scrap Steel. For each change of $1.00/ton in the price of No. 1 Heavy Melting Scrap Steel as published in American Metals Market, an increase or decrease of $.08/ton.

The above price indices for the quarter prior to the quarter in which scrap shall be received by NL shall be used in determining the amount of any adjustment to the base fees.

If the above escalators cause the base conversion charges to be increased by more than $20.00 per ton for both scrap whole batteries and plant scrap, ESB has the right to terminate

this agreement by giving 45 days written notice to NL. At such time a new agreement will be negotiated.

7. Materials Supplied by NL. NL shall provide all metals required in tolling scrap to produce Bullion and Finished Products for ESB in excess of quantities of metals credited to ESB's account. NL shall charge and ESB shall pay NL for metals supplied by NL based on the following prices for the month in which scrap is received by NL in the case of bullion; and for the month in which shipment is made to ESB in the case of Finished Products.

Lead.	U.S. Producer's average price as quoted in Metals Week for the month.
Antimony.	NL's average price for antimony in alloy (currently $1.78/pound for the month.
Tin.	Average Composite Tin Price as published in Metals Week for the month.
Arsenic.	NL's average price for the month.
Silver.	Handy and Harman Silver Prices as published in Metals Week for the month.
Other Metals.	NL's average price of the metal or mineral for the month of shipment.

NL will procure and supply ESB with whole scrap batteries, in quantities shown on the monthly schedule provided by ESB pursuant to Section C.1. of this Agreement. ESB shall pay NL for all whole scrap batteries at NL's average cost for market purchases excluding buy-sell, tolling arrangements for the month in which the batteries are procured for the NL location where procured plus a service fee of $.50 per CWT of batteries procured.

C. General Terms and Conditions

1. Forecasts. Thirty days prior to the end of each calendar quarter, ESB shall provide NL with a written forecast of: (1) the quantities of scrap batteries and plant scrap which shall be delivered to NL; (2) the quantities of whole scrap batteries which NL shall procure for ESB; and (3) showing for each location set forth on Exhibit C for each month of the following calendar quarter the quantities and specifications of Finished Product to be delivered by NL.

ESB shall provide a schedule to NL at least 10 days prior to the end of each calendar month showing for each location set forth on Exhibit C for the following calendar month: (1) the quantities of scrap which shall be delivered to NL; (2) the quantities of whole scrap batteries which NL shall procure for ESB; (3) the quantities and specifications for each Finished Product to be delivered to ESB. Unless consented to in writing by NL, the quantities forecasted and scheduled prusuant to this section shall be within the minimum and maximum limits set forth on Exhibit C. ESB shall use its best efforts to schedule deliveries of scrap to NL and take delivery of Finished Products in approximately equal monthly amounts during the term of this Agreement and any extensions and renewals thereof.

2. ESB Specifications for Finished Products. NL shall, at ESB's written direction, manufacture Finished Products conforming to ESB's specifications. However, NL shall not be obligated to produce alloys which NL has not produced in commercial quantities for ESB prior to the execution of this

Agreement as shown on Exhibit C. In no event shall NL be required to return scrap to ESB.

The total, aggregate quantity of calcium lead alloys which NL shall supply pursuant to this Agreement shall not exceed 600 tons. Should ESB wish to purchase more than 600 tons of calcium lead alloys, ESB will not retain any antimony, tin and arsenic units from the scrap NL softens for producing this material.

3. Invoice and Payment. NL shall invoice and ESB shall pay NL for Finished Products purchased by ESB an amount equal to 25% of the value of all Finished Products supplied from each NL plant during each month this Agreement remains in effect. The value of Finished Products supplied shall be calculated using the prices for metals set forth in Section B-7 of this Agreement applied to the mid point of each alloy specification for the month of shipment. The remaining quantities of Finished Products supplied shall be invoiced as tolled material pursuant to this Agreement. ESB shall pay the net amount of NL's invoice within 30 days from the date of the invoice.

4. Price Controls. If, because of any law, regulation, executive decree or other governmental action, NL is required to reduce any price or fee in effect under this Agreement or is prevented from increasing any price or fee to the extent permitted by this Agreement, NL shall have the right to terminate this Agreement upon giving 45 days written notice to ESB.

5. Term. This Agreement shall become effective on December 24, 1977, and shall remain in effect through December 21, 1978.

6. Force Majeure. Neither party shall be liable for non-performance or delay in performance due to any contingency beyond its reasonable control including, but not limited to: acts of God, fires, floods, wars, force of arms, embargoes, labor, production or transportation difficulties, shortage of materials, power, traditionally used fuel, equipment, transportation, or labor or the inability to obtain same without litigation or the payment of penalties, premiums or unusual prices; accidents, explosions, sabotage, civil commotion or riots, court decrees, and adjustment thereof; any governmental law, rule, regulation, order request, instruction or injunction, whether valid or invalid (including, but not limited to, priorities, requisitions, allocations, and price adjustment restrictions); to the performance by NL of obligations it may voluntarily assume in connection with any priorities or other system for national defense or national or international economic recovery. Upon occurrence of any such contingency, the party affected shall have the right to suspend or reduce deliveries during the period the contingency exists, and the total quantity deliverable under this Agreement shall be reduced by the quantity so omitted. Any law or regulation requiring NL to incur operating costs or make capital investments which would in NL's judgement make further performance of this agreement impractical or unprofitable shall be considered a force majeure situation.

7. Allocation. In the event of any reduction in plant capacity or shortage of supplies or raw materials, NL may, without obligation to purchase similar products from other sources, and after satisfying its own requirements allocate the products among its customers, on any basis and in any proportion as shall fairly allocate the supply, and ESB releases NL from any liability for failure to deliver the quantity specified in this Agreement.

8. Tax Changes. Any tax or governmental charge becoming effective and payable by NL because of this Agreement including sales tax, use tax, retailer's occupational tax, energy tax and gross receipts tax, shall be added to the prices then in effect. These additions shall not constitute a price adjustment.

9. Risk of Loss. Upon delivery by NL of material supplied pursuant to this Agreement to a common carrier or other carrier or vehicle, ESB shall assume the entire risk of damage to and loss of the material from any cause and the risk of delay in transportation and delivery, regardless of the form of bill of lading, and irrespective of whether title to the material has passed to ESB.

10. Safe Handling. Except for periods when scrap, Bullion and Finished Products are under the exclusive control of NL, ESB shall indemnify and hold NL harmless from any loss, cost, damage or expense, including reasonable attorney's fees which NL may incur in connection with this Agreement, including compliance with federal, state and local regulations governing unloading, discharge, storage, handling and use of scrap and Finished Products.

11. Pallets and Containers. NL shall not be obligated to pay for or return any pallets, drums or other containers which are used to ship or deliver scrap to NL to ESB. However, to the extent consistent with and practical under normal NL procedures, processes and operations, NL shall use its best efforts to return pallets and containers to ESB.

12. Warranties. NL warrants that the products supplied and services performed pursuant to this Agreement shall conform to applicable written specifications and be suitable for the manufacturing process of standard battery grids and parts, presently produced at ESB's plants, but not for the performance of any such grid or part as a component of a battery and that Finished Products furnished under NL's specifications shall not infringe the claims of any valid U.S. Patent. THE WARRANTIES STATED IN THIS PARAGRAPH ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, WRITTEN OR ORAL, STATUTORY, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

13. Limitation of Liability. NL's liability for all damages arising with respect out of or in connection with this Agreement or products supplied pursuant to this Agreement, including liability for indirect, consequential and special damages, and personal injury and property damage to ESB, its employees and customers whether based on contract, warranty, negligence or strict liability, shall not exceed the fair market value of the Finished Products as to which liability arises and ESB shall hold NL harmless from any and all losses, costs and expenses in excess thereof.

14. Patent Infringement. ESB shall save NL harmless against any infringement or threatened infringement of any U.S. patent by reason of NL's performance in accordance with product and process specifications prescribed by ESB pursuant to this Agreement and ESB shall indemnify NL for all judgments, decrees, damages, trial costs and trial expenses covered against NL on account of such infringement.

15. Termination. Either party shall have the right to terminate this Agreement immediately by written notice upon the institution of bankruptcy, reorganization, liquidation or receivorship proceedings by or against the other party.

Upon termination or expiration of this Agreement, NL shall complete the processing of all scrap on hand and deliver Finished Products to ESB in accordance with ESB's directions and specifications. Unless otherwise specified by ESB, NL shall be entitled to return to ESB Bullion or lead-antimony alloys at NL's discretion. NL shall deliver Finished Products to ESB within a reasonable time consistent with prior performance under this Agreement. ESB shall promptly pay NL all amounts due pursuant to this Agreement.

16. Exhibits. The following Exhibits are attached to and made part of this Agreement:

A - Battery Sampling Procedure

B - Laboratory Sampling Procedure

C - NL Plant Locations

D - Third Party Assays

E - Categories of Scrap

17. Entire Agreement. This Agreement constitutes the entire agreement between the parties, and supercedes all prior understandings, representations, or warranties. No modification of this Agreement shall be valid unless it is in writing signed by the parties. No modification shall be effected by the acknowledgement or acceptance of ESB's purchase order forms or other forms containing different terms or conditions.

18. Assignability. Neither party shall assign this Agreement or its rights under this Agreement, without the written consent of the other party.

19. Notice. All notices required to be given pursuant to this Agreement shall be in writing and shall be sent by certified or registered mail, return receipt requested to: NL Industries, Inc., Metal Division, P.O. Box 3618, Hightstown New Jersey 08520. ESB Ray-o-vac Management Corporation, P.O. Box 8109, Philidelphia, Pa. 19101.

20. Governing Law. The validity, construction and performance of this Agreement shall be governed by and construed in accordance with the laws of the State of New Jersey.

AGREED:

NL INDUSTRIES, INC.

By:_____

Title:_____

AGREED:

ESB, INC.

By:_____

Title:_____

V34-B2(1-14)
5/12/78

GLOBE UNION

TOLLING AGREEMENT

This Agreement dated as of the 1st day of January, 1979, between NL Industries, Inc., a New Jersey Corporation acting through its Metal Division (NL) and Globe Union, Inc., a Delaware Corporation (GLOBE).

NL and GLOBE agree as follows:

1. Tolling of Scrap. GLOBE shall supply scrap to NL and NL shall toll scrap for GLOBE in sufficient quantities to produce a minimum of 40,600 tons and a maximum of 44,900 tons of lead and lead alloys (Finished Products) on the terms and conditions set forth below.

2. Scrap and Recoverable Content. GLOBE shall supply to NL scrap material containing lead and antimony. The scrap shall consist of scrap whole starting, lighting and ignition storage batteries and plant scrap. Returnable content of scrap shall be 94.5% of the scrap's metal content, determined as set forth below:

a) Whole scrap batteries shall be deemed to assay by gross weight 48.96 percent metal content of which 97.74 percent shall be deemed to be lead, 2.06 percent antimony, 0.1 percent tin, and 0.1 percent arsenic. NL shall have

the right to adjust and modify the above percentage yields based on the battery sampling procedure and assay attached as Exhibit A, upon giving 30 days prior written notice to GLOBE. The adjustment shall be made by averaging the new and immediately prior yields under the sampling and assay procedures for all metals, except antimony for which the new yield results will control.

b) The lead, antimony, tin and arsenic content of plant scrap shall be determined by NL in accordance with the assay procedure, attached as Exhibit B. However, in no event shall GLOBE be entitled to receive credit for tin and arsenic contained in plant scrap as a percentage of the gross weight of returnable metal content in excess of 0.10 percent tin and 0.10 percent arsenic. GLOBE shall segregate and mark all plant scrap in accordance with NL's directions as agreed to. Improperly segregated and marked plant scrap may be rejected by NL or be assigned a nominal metal content, at NL's option. NL's assay results shall be conclusive upon the parties unless shown to be in error.

3. Delivery of Scrap. GLOBE shall deliver scrap f.o.b., NL plants and other locations set forth in Exhibit C to this Agreement for storage or processing. All deliveries shall be made during normal business hours and in accordance with NL's

procedures. NL shall use its best efforts to promptly unload trucks, railroad cars and barges.

When scrap is delivered to any location designated by NL, other than an NL plant, GLOBE shall notify NL in writing of the quantity and type of scrap delivered within 5 calendar days from the date of delivery.

Failure to notify NL within the prescribed time shall constitute a waiver of all claims, actions and causes of actions which GLOBE may have against NL for the scrap and GLOBE's sole remedy shall be against the operator of the location to which the scrap was delivered.

NL will weigh each shipment of material received, issue receipt for same and maintain adequate records.

The minimum and maximum quantities of scrap to be delivered to each location in terms of Finished Product to be shipped from each location, are set forth in Exhibit C opposite each NL plant and other location.

4. Scrap to be Tolled into Bullion. All scrap delivered by GLOBE to NL or NL designee shall be deemed to have been immediately tolled at the plant where the scrap was delivered into a bullion containing, by weight, 97.74 percent lead (including impurities), 2.06 percent antimony, 0.1 percent tin and 0.1 percent arsenic (Bullion). The metal composition of Bullion may be changed by NL upon giving written notice to GLOBE based on battery sampling and assays performed pursuant to Exhibit A. All further tolling shall be from Bullion to alloys as specified in writing by GLOBE.

To meet the metallic specifications of Bullion, NL shall add required quantities of lead, antimony, tin and arsenic. In this regard, NL shall first apply, to the extent available, quantities of antimony, tin and arsenic removed from Bullion in the production of alloys and softening of lead at that plant for GLOBE's account, provided that the quantity of antimony, tin and arsenic which shall be deemed available shall be 50 percent of the quantity removed from Bullion. GLOBE shall pay for all other additions of metals in quantities in excess of those credited to GLOBE from the production of alloy and softening of lead at that plant in accordance with Section 8 of this Agreement. GLOBE shall not be entitled to receive antimony, tin or arsenic except as a component of a lead alloy and NL shall not be required to transfer, deliver or pay for any unused quantities of antimony, tin or arsenic credited to GLOBE in connection with processing of Bullion into alloys or softening of lead. GLOBE shall maintain with NL, at all times while this Agreement remains in effect, an inventory of ~~3,000~~ 2500 tons of Bullion. If GLOBE's inventory of Bullion shall be less than ~~3,000~~ 2500 tons, GLOBE shall purchase Bullion from NL to bring the inventory up to ~~3,000~~ 2500 tons. GLOBE shall pay NL for Bullion a price computed in accordance with Section 8 of this Agreement.

5. <u>Delivery of Finished Products</u>. NL shall deliver Finished Products to GLOBE f.o.b. the NL plant to which scrap was delivered and Bullion was credited or transferred to GLOBE. GLOBE may

use credit for Bullion at any NL plant against receipts of Finished Products at any other plant shown on Exhibit C. GLOBE shall be entitled to transfer 200 tons per month of Bullion without charge. GLOBE shall pay a transfer charge of $20 per ton for all transfers in excess of 200 tons per month.

6. Inspection and Assay of Finished Products. GLOBE shall inspect and assay each shipment of Finished Products promptly and shall notify NL in writing of any defects in Finished Products or differences between the assay results obtained by GLOBE and the specifications for the Finished Products with respect to each shipment. If GLOBE shall not have notified NL of any defect or difference within sixty days from the date that a shipment of Finished Products is delivered f.o.b. NL's plant prior to use of the Finished Products by GLOBE, whichever shall occur first, the Finished Products shall be deemed for all purposes to have been in conformity with all specifications.

In the event of any discrepancy, which has been the subject of notification pursuant to this section, a third party assayer agreed upon by GLOBE and NL and named on Exhibit D, shall assay NL's retention sample of the Finished Products involved using established assay procedures and methods. The results of the assay performed by the third party shall be binding on GLOBE and NL.

7. Tolling Fee. As compensation for the work and services performed pursuant to this Agreement, GLOBE shall pay NL the following base processing and smelting fees:

Whole Scrap Batteries	$266/ton of returnable metal content of batteries delivered to NL.
Plant Scrap	$206/ton of scrap (gross weight) delivered to NL.

In addition to the base fees set forth above, GLOBE shall pay NL the following fees for the services specified below:

Alloying of Strontium lead.	$30/ton of alloy produced.
Removal from Bullion of antimony and other metals and minerals to produce soft lead.	$88/ton of soft lead produced.
Removal from Bullion of antimony and other metals and minerals to produce strontium lead.	$50/ton of strontium lead produced.

Tolling fees for alloys not shown on Exhibit C shall be separately agreed upon by the parties.

Base processing and smelting fees set forth in this Section shall be adjusted quarterly as set forth below to reflect increases in the cost of the following fuels and materials over the average price for the period January 1, 1978, to December 31, 1978:

Coke. For each increase of one point in the Wholesale Price Index published by the United States Department of Labor, Index 1967 = 100 (WPI), Code 052 for coke and increase of $0.055/ton.

Natural Gas. For each increase of one point in the WPI, Code 0531-0101 for natural gas an increase of $0.01/ton.

Liquified Petroleum Gas. For each increase of one point in the WPI for Code 0532-0103 an increase of $0.02/ton.

No. 2 Fuel Oil. For each increase of $1.00/barrel in average quotations for a) each coast - Philadelphia; b) Minnesota (Twin Cities South); and c) Indianapolis as published in Oil Daily, an increase of $0.035/ton.

No. 1 Heavy Melting Scrap Steel. For each increase of $1.00/ton in the price of No. 1 Heavy Melting Scrap Steel as published in American Metals Market, an increase of $0.08/ton.

The above price indices for the quarter prior to the quarter in which scrap whole batteries shall be received by NL shall be used in determining the amount of any adjustment to the base fees; 75 percent of the above prices will apply for plant scrap.

8. Materials Supplied by NL. NL shall provide all metals required in tolling scrap to produce Bullion and Finished Products for GLOBE in excess of quantities of metals credited to GLOBE's

account. NL shall charge and GLOBE shall pay NL for metals supplied by NL based on the following prices for the month in which scrap is received by NL in the case of Bullion; and for the month in which shipment is made to GLOBE in the case of Finished Products.

Lead.	U. S. Producer's average price as quoted in Metals Week for the month.
Antimony.	NL's average price for antimony in alloy (currently $1.75/pound) for the month.
Tin.	Average Composite Tin Price as published in Metals Week for the month.
Arsenic.	NL's average price for the month.
Silver.	Handy and Harman Silver Prices as published in Metals Week for the month.
Other Metals.	NL's average price of the metal or mineral for the month of shipment.

9. Forecasts. Thirty days prior to the end of each calendar quarter, GLOBE shall provide NL with a forecast of: (1) the quantities of scrap batteries and plant scrap which shall be delivered to NL; and (2) showing for each location set forth on Exhibit C for each month of the following calendar quarter the quantities and specifications of Finished Product to be delivered by NL.

GLOBE shall provide a schedule to NL at least 10 days prior to the end of each calendar month showing for each location set forth on Exhibit C for the following calendar month: (1) the

quantities of scrap which shall be delivered to NL; and (2) the quantities and specifications for each Finished Product to be delivered to GLOBE. Unless consented to in writing by NL, the quantities forecasted and scheduled pursuant to this section shall be within the minimum and maximum limits set forth on Exhibit C. GLOBE shall use its best efforts to schedule deliveries of scrap to NL and take delivery of Finished Products in approximately equal monthly giving due consideration to seasonal variations in amounts during the term of this Agreement and any extensions and renewals thereof.

10. GLOBE Specifications for Finished Products. NL shall, at GLOBE's written direction, manufacture Finished Products conforming to GLOBE's specifications. However, NL shall not be obligated to produce alloys which NL has not produced in commercial quantities for GLOBE prior to the execution of this Agreement as shown on Exhibit C. In no event shall NL be required to return scrap to GLOBE.

11. Invoice and Payment. NL shall invoice GLOBE by the sixth working day of the month following the month in which scrap shall be received by NL or Finished Products shall be delivered to GLOBE; and GLOBE shall pay the net amount of such invoices by the 20th day of that month.

12. Price Controls. If, because of any law, regulation, executive decree or other governmental action, NL is required to reduce any price or fee in effect under this Agreement or is

prevented from increasing any price or fee to the extent permitted by this Agreement, NL shall have the right to terminate this Agreement upon giving 45 days written notice to GLOBE. In such event, the parties enter into negotiations in good faith to reach a new agreement to avoid an interruption in supply to GLOBE.

13. Term. This Agreement shall become effective on January 1, 1979, and shall remain in effect through December 31, 1979.

14. Force Majeure. Neither party shall be liable for non-performance or delay in performance due to any contingency beyond its reasonable control including, but not limited to: acts of God, fires, floods, wars, force of arms, embargoes, labor, production or transportation difficulties, shortage of materials, power, traditionally used fuel, equipment, transportation, or labor or the inability to obtain same without litigation or the payment of penalties, premiums or unusual prices; accidents, explosions, sabotage, civil commotion or riots, court decrees, and adjustment thereof; any governmental law, rule, regulation, order request, instruction or injunction, whether valid or invalid (including, but not limited to, priorities, requisitions, allocations, and price adjustment restrictions); to the performance by NL of obligations it may voluntarily assume in connection with any priorities or other system for national defense or national or international economic recovery. Upon occurrence

of any such contingency, the party affected shall have the right to suspend or reduce deliveries during the period the contingency exists, and the total quantity deliverable under this Agreement shall be reduced by the quantity so omitted.

15. Allocation. In the event of any reduction in plant capacity or shortage of supplies or raw materials, NL may, without obligation to purchase similar products from other sources, and after satisfying its own requirements allocate the products among its customers, on any basis and in any proportion as shall, in NL's sole judgment, fairly allocate the supply, and GLOBE releases NL from any liability for failure to deliver the quantity specified in this Agreement. The total quantity deliverable under this Agreement shall be reduced by the quantity omitted through allocation.

16. Tax Changes. Any tax or governmental charge becoming effective and payable by NL because of this Agreement including sales tax, use tax, retailer's occupational tax, energy tax and gross receipts tax, shall be added to the prices then in effect. These additions shall not constitute a price adjustment.

17. No Resale of Batteries. NL and its designees shall destroy all scrap batteries and shall not sell, trade or transfer any scrap batteries to any other person or firm.

18. Safe Handling. Except for periods when scrap, Bullion and Finished Products are under the exclusive control of NL or NL's designee, GLOBE shall idemnify and hold NL harmless from any

loss, cost, damage or expense, including reasonable attorney's fees which NL may incur in connection with this Agreement, including compliance with federal, state and local regulations governing unloading, discharge, storage, handling and use of scrap and Finished Products.

19. Pallets and Containers. NL shall not be obligated to pay for or return any pallets, drums or other containers which are used to ship or deliver scrap to NL to GLOBE.

20. Warranties. NL warrants that the products supplied and services performed pursuant to this Agreement shall conform to applicable written specifications and be suitable for the manufacturing process for which intended (BUT NOT FOR THE PERFORMANCE OF ANY SUCH COMPONENT OF A BATTERY) and that Finished Products furnished under NL's specification shall not infringe the claims of any valid U. S. patent. NL MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS MERCHANTABILITY OR OF THE MATERIAL FOR ANY PARTICULAR PURPOSE EVEN IF THAT PURPOSE IS KNOWN TO NL.

21. Limitation of Liability. NL's liability for all damages arising with respect out of or in connection with this Agreement or products supplied pursuant to this Agreement, including liability for indirect, consequential and special damages, and personal injury and property damage to GLOBE, its employees and customers whether based on contract, warranty, negligence or strict liability, shall not exceed the fair market value of the

Finished Products as to which liability arises and GLOBE shall hold NL harmless from any and all losses, costs and expenses in excess thereof.

22. Patent Infringement. GLOBE shall save NL harmless against any infringement or threatened infringement of any U. S. patent by reason of NL's performance in accordance with product and process specifications prescribed by GLOBE pursuant to this Agreement and GLOBE shall indemnify NL for all judgments, decrees, damages, trial costs and trial expenses covered against NL on account of such infringement.

23. Termination. Either party shall have the right to terminate this Agreement immediately by written notice upon the institution of bankruptcy, liquidation or receivorship proceedings by or against the other party.

Upon termination or expiration of this Agreement, NL shall complete the processing of all scrap on hand and deliver Finished Products to GLOBE in accordance with GLOBE's directions and specifications. Unless specified in writing by GLOBE within 90 days, NL shall be entitled to return to GLOBE Finished Products selected at NL's discretion. NL shall deliver Finished Products to GLOBE within a reasonable time consistent with prior performance under this Agreement. GLOBE shall promptly pay NL all amounts due pursuant to this Agreement.

24. Exhibits. The following Exhibits are attached to and made part of this Agreement:

A - Battery Sampling Procedure

B - Laboratory Sampling Procedure

C - NL Plant Locations

D - Third Party Assays

25. Entire Agreement. This Agreement constitutes the entire agreement between the parties, and supercedes all prior understandings, representations, or warranties. No modification of this Agreement shall be valid unless it is in writing signed by the parties. No modification shall be effected by the acknowledgement or acceptance of GLOBE's purchase order forms or other forms containing different terms or conditions.

26. Assignability. Neither party shall assign this Agreement of its rights under this Agreement, without the written consent of the other party, except that NL shall have the right to assign all or any part of this Agreement in connection with any transfer of its lead smelting operations.

27. Notice. All notices required to be given pursuant to this Agreement shall be in writing and shall be sent by certified or registered mail, return receipt requested to: NL Industries, Inc., Metal Division, P. O. Box 3618, Hightstown, New Jersey 08520. Globe Union, Inc., 5757 N. Green Bay Milwaukee Wisc 53201

28. Governing Law. The validity, construction and performance of this Agreement shall be governed by and construed in accordance with the laws of the State of New Jersey.

AGREED:

NL INDUSTRIES, INC.

By: Jay W DeDapper

Title: Exec. V. P. - Opns

AGREED:

GLOBE UNION, INC.

By: Russell G Mason 4/2/79
Russell G. Mason

Title: Globe-Union Inc.
Mgr. - Purchasing and Material Group

RECEIVED
APR 5 19
BATTERY DIV.
PURCHASING

EXHIBIT A

A TOLLING AGREEMENT DATED JANUARY 1, 1979

BETWEEN NL INDUSTRIES, INC.

and

GLOBE UNION, INC.

BATTERY SAMPLING PROCEDURE

A sample shall consist of six hundred batteries. Every tenth battery, including plastic case batteries, shall be taken from the trucks selected for sampling up to a maximum of sixty from any one truck. Factory rejects shall not be included in the sample. Sampling shall continue from ten or more trucks until six hundred sample batteries have been accumulated. Each truck sample shall be palletized on a pre-weighed skid and weighed immediately and tagged with gross, tare, net weights and number of batteries. Scale tickets for each pallet shall be sent with the spread sheet to Atlanta.

Provision should be made to include in the tare weight the weight of any packing material used to secure the batteries on the skid (corrugated board, steel strapping, etc.). This can be done by weighing skid again after packing.

In other words:

1. Weigh skid (individual pallet weights at the sampling plant shall govern)
2. Weigh skid and batteries
3. Weigh skid, batteries and packing

Sampling shall be perfored by NL employees at Atlanta.

When Atlanta calls for samples to be shipped to them, six hundred batteries shall be loaded in a trailer (pre-weight empty), sealed and weighed. Scale tickets shall be sent to Atlanta as above. Any gain or loss in weight compared with the accumulated weight of the samples shall be recorded.

The trailer will then be shipped as an exclusive load to NL's Atlanta plant where it will be re-weighed, and any gain or loss in weight shall be recorded.

BATTERY DECASING

The six hundred battery sample shall then be decased by chopping. Any battery which cannot be chopped will be decased by hand or by other practical means. Plastic cased batteries are crushed whole.

If for any reason batteries are eliminated from or added to the sample at Atlanta, these batteries shall be weighed and weights recorded.

Top metal shall be recovered by crushing the tops and separating by air classification. All the groups and all the top metal recovered shall be collected.

All metal bearing materials recovered from batteries decased by means other than chopping shall be added to the groups recovered by chopping. Metal and dross recovered shall be analyzed for lead and antimony.

Discard from air classification of top materials shall be weighed, sampled and assayed for lead and antimony content.

All top metal shall be weighed and liquidated in a sample kettle.

Groups shall drain at least 16 hours and then be weighed.

Gross weight of drained groups shall be recorded. The gross weight should be approximately 13,000 lbs. This entire quantity shall be thoroughly mixed on the yard, then coned and quartered, once by alternate endloader scoops. One of the halves shall then be reduced through a riffle to about 1,200 lbs.

If desired and agreed, the other half can be similarly processed to obtain another sample of about 1,200 lbs. Rejects shall be weighed and the yard area swept clean and recovered material weighed. Totals should check with original group weight. Any difference shall be recorded.

The 1,200 lbs sample shall then be accurately weighed, liquated in a kettle keeping the inside bottom temperature at less than 880°F, the dross skimmed and the metal pot piece sampled, frozen and removed. After cooling over-night, any metallic pieces shall be removed from the dross, added to the pot piece, each part weighed accurately and the weights recorded.

The sample of the metal pot piece shall be analyzed for antimony; the balance being considered to be lead.

The dross, weighing around 900 lbs shall be coned and quartered to about 100 lbs after any large chunks have been broken up.

The approximately 100 lbs of dross remaining shall be reduced by hand until all will pass through a ¼" screen. Any plus ¼" shall be liquated, the dross added to the minus ¼" which shall be accurately weighed. The liquated metal shall be accurately weighed and analyzed for antimony; the balance assumed to be lead.

The minus ¼" shall be riffled to approximately 25 lbs, ground to pass through 40 mesh and riffled to about 1000 grams, then liquated and dross ground to pass 80 mesh and riffled to about 1000 grams. This shall be screened on an 80 mesh screen, the plus 80 metallics liquated and the dross ground to pass an 80 mesh. In this case there is generally a plus 80 mesh unliquatable metallic resulting in three functions: the minus 80 mesh fines, the plus 80 mesh free metal and the plus 80 mesh metallics. Each shall be carefully weighed and the weights recorded. The plus 80 mesh free metal shall be analyzed for antimony considering the balance to be lead. The plus 80 mesh metallics shall be analyzed for antimony and lead.

The minus 80 mesh shall be mixed thoroughly, riffled to about 2 lbs, carefully weighed and the weight recorded. This shall then be ground to minus 140 mesh and, if metallics persist, separated and weighed.

The minus 140 mesh shall be thoroughly mixed and accurately split into four parts.

The minus 140 mesh fines shall be analyzed in triplicate for lead, using a one gram sample, and for antimony. The plus 140 mesh metallics, if any, shall be analyzed for lead and antimony.

When duplicate samples are processed, the results shall be reported separately and averaged.

TREATMENT OF TOP METAL

All of the top metal produced in the separator shall be weighed, average weight circulated per battery and recorded.

The top metal, approximately 1,200 lbs shall be liquated in a sample kettle, the dross skimmed and the metal pot piece sampled, frozen and removed. Both dross and metal shall be accurately weighed and the weights recorded.

The pot piece sample shall be analyzed for antimony; the balance to be considered to be lead.

The dross shall be reduced in size and quantity like the kettle dross and the parts analyzed in the same manner.

LOCATION

All sample preparation and analytical work shall be done at NL's Atlanta plant.

CHECK ASSAYS

Samples of minus 140 mesh shall be sent to Standard Testing Laboratories, Inc. for analysis of lead and antimony content.

EXHIBIT B

A TOLLING AGREEMENT DATED JANUARY 1, 1979

BETWEEN NL INDUSTRIES, INC.

and

GLOBE UNION, INC.

NL Metal
Metal Division/NL Industries, Inc
P.O. 3618, Hightstown, N J 08520

Refining

S-O-P# 122

Process: Sampling of Dross Suitable for Chemical Analysis.

Purpose: In order to obtain a representative sample, for analytical testing, of nonhomogeneous mixtures such as drosses, which contain free metal, it is necessary to follow a uniform procedure. The procedure described below will yield proper samples and is to be used after the date or receipt of this procedure.

Equipment:
Analytical balance — capacity 2 kilograms
Scale — capacity 100 lbs.
Steel or cast iron ladle — capacity 50 lbs.
Sample furnace — air/gas capable of producing uniform temperatures of at least 1000°F.
Bell grinder
20-40-100 mesh screens
Fire assay furnace
Crucibles — Denver fire clay crucibles, Size J
Reserve sample containers

Materials Needed:
Reducing flux prepared as follows:

Sodium carbonate	3 lb. 14 oz.
Potassium carbonate	3 lb. 14 oz.
Sodium tetraborate (borax)	3 lb. 14 oz.
Calcium oxide (low Mg lime)	9 oz.
Fluorite (fluorspar)	9 oz.
Baking flour	3 lb. 14 oz.

Procedure:

1. After the sample has been quartered from the lot, all four quarters are weighed separately and accurately. The weight is recorded and the samples are put into drying ovens and dried to a constant weight (normally requires 12 hours maximum). Individual samples are reweighed, pan or tare weight recorded and moisture determined and recorded.

2. Two of the four samples are placed into suitable containers and held as reserve samples; the remaining two quarters are prepared for laboratory analysis.

3. If the sample contains large metallic pieces, they are to be removed and weighed separately. The free metal is melted in a ladle; the resultant bar or bars are cast into a steel mold, solidified and weighed. Any resultant oxides must then be added to the dross portion of the sample and the increased weight recorded.

4. The entire dross sample is put into a preheated ladle; the ladle is then put into the sample furnace; the temperature of the sample furnace is increased to approximately 850°F and the dross slowly agitated with a wooden stick or paddle to produce a metal bath by sweating the free metal from the sample. After a visual inspection reveals all of the metal is in the molten bath, the metal is poured into a mold, cooled and weighed.

TE: This procedure is to be used until replaced by a later issue at which time this should be destroy

Procedure:

5. The dross portion is then put through the bell grinder and completely ground. The sample is screened through 20-40-100 mesh screens. The particles on a 20 and 40 are returned to the ladle to melt additional free metals. The free metal is weighed and added to the metal (see 3.)

6. The dross from the above melt (5) is put through the bell grinder and again screened until all will pass through a 40 mesh.

7. The total dross portion, minus 40 mesh, is rolled on paper to obtain a completely uniform sample. From this sample, 300 grams are cut from top, bottom and sides. These 300 grams are again rolled to assure a composite sample. The sample is then screened through a 100 mesh and weighed. The sample is then ready for the laboratory where portions taken for analysis should be weighed by percentage of coarse and fines as established by the 300 gram sample percent on and through 100 mesh.

8. The percent recoverable metal in the dross sample is now determined in the following manner:

   Place 25 grams of flux in the bottom of an assay crucible; then mix 200 grams of sample with 150 grams of flux and add to crucible. Cover the sample with a 25 gram layer of flux and pack down in crucible.

9. Load sample containing crucibles into a cold furnace and start heating. Hold sample at high heat for two hours. Allow furnace to cool. Remove crucible and recover metal button.

   The total percent recoverable metal in the original sample is calculated as follows:

   $$\text{Percent Recoverable Metal} = \left(\frac{a + (s-a)(B/200)}{S}\right) 100$$

   where a = Weight of free metal recovered from original sample
   B = Weight of metal button from fire assay
   S = Weight of original sample

10. Returnable metal: 95% of Recoverable Metal.

DATA SHEET
BATTERY PLATE SAMPLING

1. Sample plates weight, as received _____ lbs.

2. Sample plates weight, after drying _____ lbs.

3. % Moisture: $\frac{\text{Wt. (1)} - \text{Wt. (2)}}{\text{Wt. (1)}} \times 100 =$ _____ %

4. Weight of foreign material removed:

   % Foreign material as received $= \frac{\text{Wt. (4)}}{\text{Wt. (1)}} \times 100$ _____ %

5. Weight of metal button recovered, adjust for weight of the hook _____ lbs.

6. Additional metal recovered based on free metal in the dross work-up as per S-O-P #122, include metal sample bar _____ lbs.

7. Total free metal

   Wt. (5) + Wt. (6) = _____ lbs.

8. Total active material (sweated) as determined by dross weight in the weighed dross drum.

   Dross Weight: _____ lbs.

9. Adjusted dross weight after dross work-up (S-O-P #122) _____ lbs.

10. After analysis of the metal sample and dross sample, calculate the lead and antimony for the total sample analysis and value.

Metal	% Antimony	_____
Dross	% Antimony	_____
	% Lead	_____

NL Industries Plant _____

Date _____

3. Samples to be dried in an oven should be placed in clean sample pans. The sample pans and samples are placed in the oven at 225°F for about 24 hours.

4. Weigh the sample plates after step 2b or 3, to determine the moisture content by the weight lost on drying. Record the weight.

5. After drying and weighing, the sample should be inspected to determine the amount of rubber and other foreign material.

   Remove the foreign material, weigh and record the weight.

6. Carefully place the plates in a clean, small kettle (1 ton) which is heated and temperature controlled at from 700-750°F.

   Some diesel fuel or sawdust should be added to the plates and ignited to aid in the melt down.

7. After the grid metal has melted and sweated out of the plates, squeeze the dross carefully with a skimmer to recover as much free metal into the kettle as possible.

8. Carefully remove the dross and place into a clean weighed container for further working as a dross. See S-O-P #122, "Sampling of Dross Suitable for Chemical Analysis."

   Weigh and record weight of drum and dross.

9. Using a clean sample ladle, pour a sample bar, representative of the metal recovered in the kettle. Have sample analyzed for antimony. All other elements will be reported as lead balance.

10. Turn off the kettle burner. As the metal cools, place a weighed hook into the metal button to facilitate removal of the button.

11. When cool, weigh the metal button and hook. Subtract the weight of the hook and record button weight.

12. Turn over all recorded weights to the foreman for use in calculating total plate analysis. The metal and dross analyses are necessary for this calculation. The dross requires lead and antimony analysis.

13. See attached typical sheet for recording data.

DATA SHEET
BATTERY PLATE SAMPLING

1. Sample plates weight, as received _____ lbs.

2. Sample plates weight, after drying _____ lbs.

3. % Moisture: $\frac{\text{Wt. (1)} - \text{Wt. (2)}}{\text{Wt. (1)}} \times 100 =$ _____ %

4. Weight of foreign material removed:

   % Foreign material as received $= \frac{\text{Wt. (4)}}{\text{Wt. (1)}} \times 100$ _____ %

5. Weight of metal button recovered, adjust for weight of the hook _____ lbs.

6. Additional metal recovered based on free metal in the dross work-up as per S-O-P #122, include metal sample bar _____ lbs.

7. Total free metal

   Wt. (5) + Wt. (6) = _____ lbs.

8. Total active material (sweated) as determined by dross weight in the weighed dross drum.

   Dross Weight: _____ lbs.

9. Adjusted dross weight after dross work-up (S-O-P #122) _____ lbs.

10. After analysis of the metal sample and dross sample, calculate the lead and antimony for the total sample analysis and value.

Metal	% Antimony	_____
Dross	% Antimony	_____
	% Lead	_____

NL Industries Plant _____

Date _____

Process: Test procedure for evaluating truckloads of battery plates.

Purpose: In order to assign the proper value to scrap battery plates, it is necessary that the free metal and active materials in the plates be carefully separated and each portion analyzed separately. The total analysis and value of the plates can then be calculated.

Equipment:
Scales — 500 pound capacity
25 pound capacity
Sample pans
Drying oven (225°F)
Lead melting kettle (1 ton)
Hood for kettle, draft velocity must be at least 200 feet per minute
Pyrometer and thermocouple (700-750°F)
Dross Skimmer
Hooks for removing metal button
Sample ladle and mold

Materials Needed:
Fuel oil
Sawdust
Calculation Sheets

Safety Precautions: Operator must wear an approved respirator, face shield, safety glasses, hard hat, safety shoes, acid resistant gloves, heat resistant gloves and spats.

Operator must be assured that all tools and equipment that contact molten metal are dry. Wet tools cause spattering.

The kettle must be hooded and the draft velocity at least 200 feet per minute.

Procedure: It is assumed that the plates selected for this test procedure are representative of the entire truckload. If the sample plates chosen are not representative, all the further testing will be inaccurate. All equipment must be clean when used.

1. About 225 pounds of plates, representative of the truckload are carefully weighed. Record the weight so that moisture content can be calculated.

2. Transfer the samples to one of the following:

   a. The sample room for oven drying (225°F)

   b. A clean, warm area, where the plates can be spread out and air dried for 24 to 48 hours.

E: This procedure is to be used until replaced by a later issue at which time this should be destroy

NL Metal
Metal Division/NL Industries, Inc
P.O. 3618, Hightstown, N J 08520

Refining

S-O-P# 122

Process: Sampling of Dross Suitable for Chemical Analysis.

Purpose: In order to obtain a representative sample, for analytical testing, of nonhomogeneous mixtures such as drosses, which contain free metal, it is necessary to follow a uniform procedure. The procedure described below will yield proper samples and is to be used after the date or receipt of this procedure.

Equipment:
Analytical balance — capacity 2 kilograms
Scale — capacity 100 lbs.
Steel or cast iron ladle — capacity 50 lbs.
Sample furnace — air/gas capable of producing uniform temperatures of at least 1000°F.
Bell grinder
20-40-100 mesh screens
Fire assay furnace
Crucibles — Denver fire clay crucibles, Size J
Reserve sample containers

Materials Needed: Reducing flux prepared as follows:

Sodium carbonate	3 lb. 14 oz.
Potassium carbonate	3 lb. 14 oz.
Sodium tetraborate (borax)	3 lb. 14 oz.
Calcium oxide (low Mg lime)	9 oz.
Fluorite (fluorspar)	9 oz.
Baking flour	3 lb. 14 oz.

Procedure:

1. After the sample has been quartered from the lot, all four quarters are weighed separately and accurately. The weight is recorded and the samples are put into drying ovens and dried to a constant weight (normally requires 12 hours maximum). Individual samples are reweighed, pan or tare weight recorded and moisture determined and recorded.

2. Two of the four samples are placed into suitable containers and held as reserve samples; the remaining two quarters are prepared for laboratory analysis.

3. If the sample contains large metallic pieces, they are to be removed and weighed separately. The free metal is melted in a ladle; the resultant bar or bars are cast into a steel mold, solidified and weighed. Any resultant oxides must then be added to the dross portion of the sample and the increased weight recorded.

4. The entire dross sample is put into a preheated ladle: the ladle is then put into the sample furnace; the temperature of the sample furnace is increased to approximately 850°F and the dross slowly agitated with a wooden stick or paddle to produce a metal bath by sweating the free metal from the sample. After a visual inspection reveals all of the metal is in the molten bath, the metal is poured into a mold, cooled and weighed.

TE: This procedure is to be used until replaced by a later issue at which time this should be destroy

Procedure:

5. The dross portion is then put through the bell grinder and completely ground. The sample is screened through 20-40-100 mesh screens. The particles on a 20 and 40 are returned to the ladle to melt additional free metals. The free metal is weighed and added to the metal (see 3.)

6. The dross from the above melt (5) is put through the bell grinder and again screened until all will pass through a 40 mesh.

7. The total dross portion, minus 40 mesh, is rolled on paper to obtain a completely uniform sample. From this sample, 300 grams are cut from top, bottom and sides. These 300 grams are again rolled to assure a composite sample. The sample is then screened through a 100 mesh and weighed. The sample is then ready for the laboratory where portions taken for analysis should be weighed by percentage of coarse and fines as established by the 300 gram sample percent on and through 100 mesh.

8. The percent recoverable metal in the dross sample is now determined in the following manner:

   Place 25 grams of flux in the bottom of an assay crucible; then mix 200 grams of sample with 150 grams of flux and add to crucible. Cover the sample with a 25 gram layer of flux and pack down in crucible.

9. Load sample containing crucibles into a cold furnace and start heating. Hold sample at high heat for two hours. Allow furnace to cool. Remove crucible and recover metal button.

   The total percent recoverable metal in the original sample is calculated as follows:

   $$\text{Percent Recoverable Metal} = \left(\frac{a + (s-a)(B/200)}{S}\right) 100$$

   where a = Weight of free metal recovered from original sample
   B = Weight of metal button from fire assay
   S = Weight of original sample

10. Returnable metal: 95% of Recoverable Metal.

EXHIBIT C

A TOLLING AGREEMENT DATED JANUARY 1, 1979

BETWEEN NL INDUSTRIES, INC.

and

GLOBE-UNION INC.

EXHIBIT C TO GLOBE UNION - NL TOLLING AGREEMENT

NL locations and twelve month tonnages (short tons)

	Strontium Lead	Pure Lead	Antimonial Lead
Cleveland, Ohio	4,100	--	4,000
Pedricktown, N. J.	1,600	2,080	7,500
McCook, Ill.	1,320	2,200	--
Atlanta, Ga.	--	1,740	5,200
Granite City, Ill.	--	--	3,000
Beech Grove, Ind.	--	--	10,000
TOTALS	7,020	6,020	29,700
			42,740

GOULD

TOLLING AGREEMENT

This Agreement dated as of the first day of April, 1977 between N L Industries, Inc. a New Jersey Corporation acting through its Metal Division (N L) and Gould, Inc., a Delaware Corporation (Gould).

NL and Gould agree as follows:

1. Gould to Supply Lead and Antimony Lead Alloy Scrap Materials. Gould shall supply to NL scrap material containing lead and antimony. The scrap shall consist of whole unbroken starting, lighting and ignition storage batteries and plant scrap. Plant scrap shall be composed of two categories:

a) starting, lighting and ignition battery plates, pot dross, casting dross, rejected lead oxides, lead dust and wheel weights; and

b) sump mud and slurry.

2. NL to Credit Gould's Account for Lead and Antimony Content of Scrap. NL shall credit Gould's account at the NL plant to which the scrap is delivered with the 95% of the lead and antimony contained in scrap delivered to NL by Gould. For the purpose of crediting Gould's account, whole scrap batteries shall be deemed to contain 49.16% by gross weight of recoverable metal which 97.65% shall be deemed to be lead and 2.35% antimony. NL shall have the right to adjust and modify the above percentage yields based on the battery sampling procedure, attached as Exhibit A, upon giving 30 days prior written notice to Gould.

The antimony and lead content of plant scrap shall be determined by NL in accordance with the assay procedure, attached as Exhibit B.

NL shall also credit Gould's account for the tin and arsenic content of scrap determined in accordance with the assay procedure attached as Exhibit B. However, in no event shall Gould be entitled to receive credit for tin and arsenic contained in scrap as a percentage of the gross weight of recoverable metal content in excess of .10% tin and .10% arsenic.

NL's assay results shall be conclusive upon the parties.

Unless otherwise agreed to in writing by the parties. No credit shall be given for any other metal, mineral or material contained in the scrap irrespective whether or not it is recoverable.

3. <u>NL to Return Lead and Lead Antimony Alloys to Gould</u>. NL shall return to Gould, at the plant where the scrap was delivered, lead and lead antimony alloys (Finished Products) with lead and antimony content by weight equal to the amount of lead and antimony credited to Gould pursuant to Section 2 above. NL shall, at Gould's written direction, manufacture lead and lead-antimony alloys in accordance with Gould's directions and specifications. However, NL shall not be obligated to produce alloys which NL has not produced in commercial quantities for Gould prior to the execution of this Agreement. In no event shall NL be required to return scrap

to Gould.

4. Quantities. Gould shall deliver or previously have delivered to NL at the locations set forth on Exhibit C scrap sufficient to produce at least 14,000 tons of secondary lead and lead-antimony alloys. The quantities of scrap, stated in terms of Finished Product to be delivered to each location, are set forth in Exhibit C opposite each plant location. NL reserves the right to modify Exhibit C by adding or deleting locations and by increasing or decreasing quantities for any location upon giving written notice to Gould. Gould shall have the option to delete the quantities identified on Exhibit C for the location affected upon giving written notice to NL within 30 days from the date notice of the change shall have been given by NL.

5. Forecast of Quantities of Secondary Lead and Lead Antimony Alloys to be Produced. Thirty days prior to the end of each contract quarter, Gould shall provide NL with a written forecast of: (1) the quantities of scrap to be delivered to NL at each of the locations designated on Exhibit C; and (2) a statement of lead and lead antimony alloys to be delivered to Gould at each location during the calendar quarter; and (3) the quantities and specification by location for each lead antimony alloy to be delivered by NL.

Gould shall notify NL in writing at least 10 days prior to the end of each calendar month of the scheduled quantities and specifications for lead and lead-antimony alloys to be delivered to Gould in the succeeding month for each location designated on Exhibit C. Gould shall use its best efforts to

schedule deliveries of scrap to NL and take delivery of lead and lead-antimony alloys in approximately equal monthly amounts during the contract year.

6. Reserves of Scrap. Gould shall maintain a reserve of scrap with NL containing not less than 500 tons of lead and antimony consisting of 488 tons of lead and 12 tons of antimony. The scrap reserve shall be delivered to NL at its plant(s).

If Gould's inventory shall fall below the minimum amounts specified, NL shall transfer lead and antimony to Gould's account. Gould shall pay NL for all quantities of lead transferred to Gould at NL's average price for the month of transfer and for all quantities of antimony transferred at the RMM Laredo price as published in Metals Week for the month of transfer plus freight.

7. Delivery of Scrap. Gould shall deliver all scrap F.O.B. NL plants as designated in Exhibit C or to other nearby locations designated by NL in writing for storage or processing by NL. All deliveries shall be made during normal business hours and in accordance with NL's usual plant procedures. NL shall use its best efforts to promptly unload trucks, railroad cars and barges. However, Gould shall hold NL harmless from any demurrage charges which NL may incur.

When scrap is delivered to any location designated by NL, other than an NL plant, Gould shall notify NL in writing of the quantity and type of scrap delivered to the other designated locations within 5 days of the day of delivery. Failure to notify NL within the prescribed time shall constitute a waiver of all claims, actions and causes of actions which Gould may

have against NL for the scrap and Gould's sole remedy shall be against the operator of the location to which the scrap was delivered.

8. Delivery of Lead and Lead Antimony Alloys. NL shall deliver to Gould lead and lead-antimony alloys F.O.B. the NL plant to which scrap containing an equivalent amount of lead and antimony were delivered. Gould shall be entitled to transfer lead and lead-antimony credits among NL plants, provided that the total aggregate amount transferred shall not exceed 488 tons of lead and 12 tons of antimony per month and no transfer to or from any plant location shall exceed 244 tons of lead and 6 tons of antimony in any month. For all transfers between NL plants, NL shall charge Gould $40.00 per ton if the transfer is inter-zone as set forth in Exhibit D and $25.00 per ton if the transfer is intra-zone as set forth in Exhibit D.

9. Inspection and Assay of Lead and Lead-Antimony Alloys. Gould shall inspect and assay each shipment of Finished Products promptly and shall notify NL in writing of any defects in Finished Products or differences between the assay results obtained by Gould and the specifications for the Finished Products with respect to each shipment. If Gould shall not have notified NL of any defect or difference within sixty days from the date that the shipment of Finished Products is delivered F.O.B. NL's plant or prior to use of the Finished Products by Gould, whichever shall occur first, the Finished Products shall be deemed for all purposes to have been in conformity with all specifications.

In the event of any discrepancy, which has been the subject of notification pursuant to this section, a third party assayer agreed upon by Gould and NL and named on Exhibit E, shall assay NL's retention sample of the Finished Products involved using established assay procedures and methods. The results of the assay performed by the third party shall be binding on Gould and NL.

10. Tolling Fee. As compensation for the work and services performed pursuant to this Agreement Gould shall pay NL the following base processing and smelting fees:

Whole Scrap Batteries	$228/ton of recoverable metal content of batteries delivered to NL.
Plant Scrap	
Category a)	$147/ton of scrap delivered to NL
Category b)	$167/ton of scrap delivered to NL

The base processing and smelting fees shall be increased by $5 per ton for each cent by which the average monthly price of lead as quoted in Metals Week shall exceed 32.5 cents per pound as of the month of delivery of scrap to NL. In addition to the base fees set forth above, Gould shall pay NL the following fees for the services specified below:

Production of alloys containing 3.5% antimony or less to Gould's specification.	$20/ton of alloy produced.
Removal of antimony and other metals and minerals to produce soft lead.	$87.50/ton of soft lead produced.

Gould shall retain all credits for antimony removed in the production of soft lead but Gould's tin and arsenic account shall be reduced by the quantity of tin and arsenic removed.

11. Adjustment to Fees. Base processing and smelting fees set forth in Section 10 of this Agreement shall be adjusted as set forth below to reflect changes in the cost of the following fuels and materials in any month during which this Agreement shall be in effect, over the average price for the period April 1, 1976 to March 31, 1977:

Coke. For each change of one point in the Wholesale Price Index published by the United States Department of Labor, Index 1967 = 100 (WPI), Code 052 for coke an adjustment of $.06/ton.

Natural Gas. For each change of one point in WPI, Code 0531-0101 for natural gas an adjustment of $.02/ton.

Propane. For each change of one point from WPI for Code 0532-0103 for propane, an adjustment of $.005/ton.

No. 2 Fuel Oil. For every change of $1.00/gallon in average quotations for a) east coast - Philadelphia; b) Minnesota (Twin Cities South); and c) Indianapolis as published in Oil Daily, an adjustment of $.05/ton.

No. 1 Heavy Melting Scrap Steel. For each change of $1.00/ton in the price of No. 1 Heavy Melting Scrap Steel as published in American Metals Market, an adjustment of $.08/ton.

The delivery date of scrap to NL shall be used in determining whether an adjustment shall be made to fee.

12. Additions of Metals and Minerals. NL shall provide all metals and minerals required to produce lead-antimony alloys for Gould in excess of quantities credited to Gould's account. NL shall charge and Gould shall pay NL for minerals and metals supplied by NL based on the following prices for the month in which shipment is made to Gould.

Lead. NL's average price.

Antimony. RMM Laredo average price as published in Metals Week plus freight.

Tin. Average Composite Tin Price as published in Metals Week.

Arsenic. NL's average price for month of shipment.

Other Metals. NL's average price of metals.

13. Price Controls. If, because of any law, regulation, executive decree or other governmental action, NL is required to reduce any price or fee in effect under this Agreement or is prevented from increasing any price or fee to the extent it wishes pursuant to Sections 10, 11 and 12 of this Agreement, NL shall have the right to terminate this Agreement immediately upon giving written notice to Gould.

14. Warehousing. NL shall store inventory for Gould without charge provided that Gould's inventory at each NL plant, based on lead and antimony content, shall not in any month exceed the lead and antimony content of Finished Products ordered for delivery by Gould at that plant for the two immediately preceeding months by more than ten percent. Gould shall pay NL a warehousing fee of $5.00/ton per month on any quantities of inventory in excess

thereof, commencing May 1, 1977.

15. Payment. Gould shall pay the net amount of NL's invoice within ten days from the date of the invoice.

16. Term. This Agreement shall become effective on the 1st day of April, 1977, and shall remain in effect for a period of one year thereafter.

17. Force Majeure. Neither party shall be liable for non-performance or delay in performance due to any contingency beyond its reasonable control including, but not limited to, acts of God, fires, floods, wars, force of arms, embargoes, labor, production or transportation difficulties, shortage of materials, power, traditionally used fuel, equipment, transportation, or labor, or inability to obtain same without litigation or the payment of penalties, premiums or unusual prices, accidents, explosions, sabotage, civil commotion or riots, court decrees, and adjustment thereof; due to any governmental law, rule, regulation, order request, instruction or injunction, whether valid or invalid (including, but not limited to, priorities, requisitions, allocations, and price adjustment restrictions); or due to the performance by NL of obligations it may voluntarily assume in connection with any priorities or other system for national defense or national or international economic recovery. Upon occurrence of any such contingency, the party affected shall have the right to suspend or reduce deliveries during the period the contingency exists, and the total quantity deliverable under this Agreement shall be reduced by the quantity so omitted.

18. Allocation. In the event of any reduction in plant capacity or shortage of supplies or raw materials, NL may,

without obligation to purchase similar products from other sources, and after satisfying its own requirements, and those of its divisions, subsidiaries and affiliates, allocate the products among its customers, on any basis and in any proportion as shall, in NL's sole judgment, fairly allocate the supply, and Gould releases NL from any liability for failure to deliver the quantity specified in this Agreement.

19. Tax Changes. Any tax or governmental charge becoming effective and payable by NL because of this Agreement including sales tax, use tax, retailer's occupational tax, and gross receipts tax, shall be added to the prices then in effect. These additions shall not constitute a price adjustment.

20. Risk of Loss. Upon delivery by NL of material supplied pursuant to this Agreement to a common carrier or other carrier or vehicle, Gould shall assume the entire risk of damage to and loss of the material from any cause and the risk of delay in transportation and delivery, regardless of the form of bill of lading, and irrespective of whether title to the material has passed to Gould.

21. Safe Handling. Except for periods when scrap and Finished Products are under the exclusive control of NL, Gould shall indemnify and hold NL harmless from any loss cost damage or expense, including reasonable attorney's fees which NL may incur in connection with this Agreement, including compliance with federal, state and local regulations governing unloading, discharge, storage, handling and use of scrap and Finished Products.

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22. Containers. Where shipment requires use by NL of carboys, drums, barrels, or other returnable containers, title to the containers shall remain in NL and Gould shall deposit with NL amounts reasonable required by NL to insure the return of the container to the point of shipment. NL containers shall be kept in good condition and shall not be used for any other material and shall be returned to NL within 60 days from the date of shipment. Gould shall comply with ICC regulations requiring empty drums to have filling and vent holes properly closed and empty carboys to be thoroughly and completely drained. Upon return of such containers in good condition, NL shall refund Gould's deposit. Gould shall immediately make NL whole if containers are lost, damaged or not returned within 60 days from date of shipment.

NL shall not be obligated to pay for or return any pallets or containers to Gould. Where practical NL shall return any usable pallets or containers to Gould.

23. Warranties. NL makes only the following warranty as to the material sold and services performed pursuant to this Agreement: That it is of commercial quality; that it conforms to specifications and that Finished Products furnished under NL's specifications shall not infringe the claims of any valid U.S. patent. NL MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS OF THE MATERIAL FOR ANY PARTICULAR PURPOSE EVEN IF THAT PURPOSE IS KNOWN TO NL.

24. Limitation of Liability. NL's liability for all damages arising with respect out of or in connection with this Agreement or products supplied pursuant to this Agreement, including liability

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for indirect, consequential and special damages, whether based on contract, warranty, negligence or strict liability, shall not exceed the fair market value of the Finished Products as to which liability arises and Gould shall hold NL harmless from any and all losses, costs and expenses in excess thereof.

25. Patent Infringement. Gould shall save NL harmless against any infringement or threatened infringement of any U.S. patent by reason of NL's performance in accordance with product and process specifications prescribed by Gould pursuant to this Agreement and Gould shall indemnify NL for all judgments, decrees, damages, trial costs and trial expenses covered against NL on account of such infringement.

26. Termination. Either party shall have the right to terminate this Agreement immediately by written notice upon the institution of bankruptcy, reorganization, liquidation or receivorship proceedings by or against the other party.

Upon termination or expiration of this Agreement, NL shall complete the processing of all scrap and deliver Finished Products to Gould in accordance with Gould's directions and specifications. Unless otherwise specified by Gould, NL shall be entitled to return to Gould lead, antimony and lead-antimony alloys at NL's discretion. NL shall deliver Finished Products to Gould within a reasonable time consistent with prior performance under this Agreement. Gould shall promptly pay NL all amounts due pursuant to this Agreement.

27. Exhibits. The following Exhibits are attached to and made part of this Agreement:

A - Battery Sampling Procedure

B - Laboratory Sampling Procedure

C - NL Plant Locations

D - Transfer Points for Finished Products

28. Entire Agreement. This Agreement constitutes the entire agreement between the parties, and supercedes all prior understandings, representations, or warranties. No modification of this Agreement shall be valid unless it is in writing signed by the parties. No modification shall be effected by the acknowledgement or acceptance of Gould's purchase order forms or other forms containing different terms or conditions.

29. Assignability. Neither party shall assign this Agreement of its rights under this Agreement, without the written consent of the other party, except that NL shall have the right to assign all or any part of this Agreement in connection with any transfer of its lead smelting operations.

30. Notice. All notices required to be given pursuant to this Agreement shall be in writing and shall be sent by certified or registered mail, return receipt requested to: NL Industries, Inc., Metal Division, P. O. Box 3618, Hightstown, New Jersey 08520. Gould, Inc., P. O. Box 3140, St. Paul, Minnesota 55165.

31. Litigation. In any litigation arising out of the terms of this Agreement, the court shall award to the prevailing party in addition to all other relief the reasonable attorney's fees for counsel for the prevailing party.

AGREED:

NL INDUSTRIES, INC.

By: _____

Title: _____

AGREED:

GOULD INC.

BY: _____

Title: _____

R. Putney

MASTER METALS INC.

SUBSIDIARY OF
NATIONAL LEAD CO.
2850 WEST THIRD STREET
CLEVELAND, OHIO 44113

L. H. HERTHNECK
MANAGER

RECEIVED
J. A. MARDICK
APR 14 1970
METAL DIVISION

April 10, 1970

Mr. John W. Bennie, Non-ferrous Metals &
Scrap Purchasing Dept.
Ford Motor Company
The American Road
Dearborn, Michigan

Dear Mr. Bennie:

I wish to refer to our several conversations, concerning the questions raised as to a more profitable, convenient or suitable means to handle the scrap lead items generated at your Owosso, Michigan Plant.

Inasmuch as Ford Motor Company is a very substantial national customer of all National Lead Company, I think I should confirm the fact that we customarily quote the very lowest smelting charges possible on the monthly Owosso lead scrap, in order to help maintain that relationship. Current April, 1970, scrap awarded to us in Cleveland was at a $45.00 per ton smelting charge, with a $9.00 per ton freight allowance, on account of your own trucking, Owosso to Cleveland, or a net f.o.b. Cleveland smelting charge of $36.00 per ton. By comparison, you will note from today's American Metal Market that the current scrap metal dealer, in the Chicago area, scrap battery lead smelting charge is quoted at $70-$75 per ton, and New York area, $85-$90 per ton -- f.o.b. smelter! So, I would strongly advise that Owosso continue to submit monthly bids, inasmuch as our intentions are to continue to give them the lowest smelting charge possible, even if that basis continues near the "break even" point!

In regard to "tolling" or "exchanging" Owosso scrap for equivalent M2A48A, I wish to assure you that this would be economically unsound to you, for the following reasons:

About 30% of the lead scrap generated at Owosso originates from lead oxides, which contains no arsenic, tin or antimony. The remainder of the scrap is a mixture of lead alloy/oxide, with an average of approximately .22% tin and .20% arsenic. In other words, your over-all total scrap package would average about .16% tin and .14% arsenic. Inasmuch as your 48A alloy requires an average of .55% tin and .50% arsenic, we would calculate thus:

Tin
.55% in 48A alloy
.16% in scrap
.39% additive -7.8# @ $1.80 per lb. =$14.04 per ton

(Contd.)

Arsenic
.50% in 48A alloy
.14% in scrap
.36% additive = 7.2# @ $0.62 per lb. = 4.46 per ton

Total cost of tin/arsenic additives $18.50 perton

By the time we add our costs of unloading, loading, smelting, refining, internal transportation costs, etc., as well as our normal metallurgical smelting losses, I am sure you will agree we would be far above the net smelting charge of $36.00 quoted you on your April scrap to Cleveland. Most of your plant scrap is utilized by us for alloy end users who do not require the higher tin and arsenic specs.

I wish to comment further concerning the trucking of same scrap. If we were to transport such scrap by commercial trucks, or our own trucks, I am sure the cost would be considerably more than that of your own trucks, because of your large fleet movements inbound/outbound, in the general Cleveland/Detroit area, with and without cargo. If our trucks or commercial trucks had to carry such scrap, we would have no alternative but to add such extra costs (over yours) to the smelting charge quoted you, which would give you a lesser dollar return, than presently.

I again assure you that your present basis is the most advantageous to Ford Motor Company. As further evidence of this statement, nobody has ever quoted a better price on your monthly Owosso scrap bid than ourselves. It is my purpose to serve you to the best of my ability, and that is just what I am doing.

If you have any further questions, or, if any of the above needs clarification, please advise.

Yours very truly,

MASTER METALS INC.

L. H. Hurthneck,
Manager

LHH:hr
cc: Mr. R. O. McCarthy

SOLDERS - CHART

"M" No.	SAE No.	Solder Type	Sn (Tin)	Pb (Lead)	Zn (Zinc)	Sb (Antimony)	Bi (Bismuth)	Remarks
M-1506-B			65.0-67.0	.50	Rem.	.50	.75-1.25	Aluminum Soldering
M-1513-C*			2.5-2.75	Rem.	Trace	4.90-5.40	.25	Lead Base Alloy-Body Filler
M-1519-A	5A	20-80	19.0-20.0	Rem.	.005	.40	.25	Dipping Heater Cores
M-1519-B	5B		19.0-20.0	Rem.	.005	1.25-1.75	.25	Dipping
M-1520		50-50	49.0-51.0	Rem.	.005	.40	.25	Special Electrical
M-1522	2A	40-60	39.0-40.0	Rem.	.005	.40	.25	Electrical Radiator
M-1535		35-65	34.0-35.0	Rem.	.005	.40	.25	General Radiator
M-1538-A	3A	30-70	29.0-30.0	Rem.	.005	.40	.25	Radiator
M-1538-B			29.0-30.0	Rem.	.005	.75-1.25	.25	Fuel Tank
M-1584-B	6B		14.0-15.0	Rem.	.005	.75-1.25	.25	Special Body Work
M-1587		63-37	62.0-64.0	Rem.	.005	.40	.25	Special
M-7501	4A	25-75	24.0-25.0	Rem.	.005	.40	.25	Radiator Tubes

Note 1 All percentages are maximum values unless a range is indicated.

* This alloy contains .40-.60 Arsenic

Impurities Percent Maximum	
Cu	.08
Fe	.02
Al	.005
Total Other Elements	.08

(Formerly M-4A)

JAN 30
HELEN - PLEASE FILE

NL INDUSTRIES

METAL DIVISION

Midwest Region

January 29, 1976

General Cable Corp.
P. O. Box 489
Monticello, Illinois 61856

Mr. Thomas O. Kotal

Dear Sir,

There appears to be a misunderstanding regarding the freight charges per your letter of 1/26/76.

The shipment in question (#6301900) was shipped from Cleveland 1/5/76, FOB McCook, Ill., on your order #1088-011. This was sent collect and the freight difference was deducted from the invoice. The shipments you refer to as FOB delivered, were on your order 8-011 which were shipped prepaid on 1/14 and 1/15.

We therefore are returning the freight bill for your payment. If you have any further questions, I will be pleased to assist you.

Very truly yours

Donald Tanney

Donald Tanney

DT/RJ
Enc.

BCC: KM
BN
HK ✓

900 West 18th Street, Chicago, Illinois 60608 • (312) 226-3700
Division of N L Industries, Inc.

N Metals

July 9, 1979

Mr. John Peterson
Prestolite Battery Div.
P.O. Box 931
Toledo, Ohio 73694

Dear John:

Confirming our recent agreement, NL will receive scrap from Prestolite and will supply Prestolite with antimonial lead alloys under the following terms:

1) NL will sell Prestolite antimonial lead alloys at NL's price for lead, f.o.b. NL's facility. This price applies for all alloys presently being furnished by NL to Prestolite. Should Prestolite require a new alloy, a special price will be negotiated.

2) For a twelve month period, beginning June 1, 1979, NL will supply approximately 3,600 tons of antimonial lead to Prestolite. Shipping points for NL shall be Atlanta, Ga. and Pedricktown, N.J. Prestolite's receiving points shall be East Point, Ga. and Reading, Pa.

3) NL shall pay Prestolite $15.00 per cwt. for scrap whole batteries f.o.b. NL's facility. This price shall be adjusted by $0.50 per cwt. for every $1.00 per cwt. charge in the NL price for lead from a base price of $48.00 per cwt.

4) NL shall purchase Prestolite's plant scrap at the NL lead price for the metal contained less a smelting charge of $241.00 per gross ton of scrap. All plant scrap shall be f.o.b. NL's facilities.

5) The amount of scrap (both batteries and plant scrap) that NL shall receive from Prestolite shall not exceed the quantities shipped by Prestolite during the period March 1, 1978 - February 29, 1979, to NL's facilities at Atlanta, Ga. and Pedricktown, N.J.

Metal Division/NL Industries, Inc.
P.O. 3618, Hightstown, N.J. 08520 Tel. (609) 448-3200

These quantities are to be reviewed every three months by NL and Prestolite to insure compliance. A breakdown of the quantities of scrap for the above mentioned period is attached.

6) Purchases of scrap by NL and the sale of alloys to Prestolite shall be treated as separate transactions. Invoicing for purchases and sales shall be between NL's division headquarters in Hightstown and Prestolite's Atlanta and Reading plants.

7) This entire agreement is assignable in whole or part only if both parties agree in writing to any such assignments.

John, I think the above has summed up our agreement. Please note your agreement by signing and returning this letter to my office. Enclosed is a copy for your files.

Thank you for your cooperation in reaching this agreement.

Very truly yours,

David F. Cook

David F. Cook
National Sales Manager
Battery Products

John Peterson

DFC/ab

Enclosures

ATLANTA

Month	Plant Scrap Gross Wt.	Whole Batteries Gross Wt.
March '78	455,584	206,595
April '78	501,268	171,448
May '78	415,570	161,075
June '78	417,965	172,475
July '78	260,595	76,561
August '78	597,862	222,230
September '78	496,664	86,125
October '78	732,649	154,309
November '78	471,381	180,105
December '78	279,373	265,035
January '79	385,106	221,405
February '79	574,826	209,725
	5,588,843	2,127,088

PEDRICKTOWN

Month	Plant Scrap Gross Wt.	Whole Batteries Gross Wt.
March '78	-0-	33,120
April '78	-0-	22,115
May '78	-0-	44,730
June '78	-0-	-0-
July '78	111,815	49,360
August '78	201,150	-0-
September '78	73,140	14,180
October '78	-0-	39,040
November '78	116,780	-0-
December '78	38,770	23,620
January '79	-0-	18,180
February '79	42,480	11,320
	584,135	255,665

Exhibit 6

Master Metals, Inc.

January 11, 1933	-	The executive Committee of the Board of Directors authorized the acquisition of and interest in metal business conducted in Cleveland, Ohio by Master Builders Company and the formation of a new corporation, organized for the conduct of said business under the name Master Builders Metals, Inc. And the transfer of National Lead Company of 60% of the common stock of the new corporation.
March 3, 1933	-	Master Metals, Inc. Was incorporated in Ohio. Place of business - 2850 West Third Street, Cleveland, Ohio. National Lead Company owned 1200 shares common stock. Master Builders Company owned 800 shares common stock. In addition: National Lead Company subscribed for 1250 shares Class A preferred stock. Master Builders Company subscribed for 500 shares Class B preferred stock.

At some point prior to 1970, Master Metals, Inc. Became identified as Master Metal Division of National Lead Company.

October 28, 1970	-	Plan of Liquidation approved
December 8, 1970	-	Property deeded to National Lead Company (recorded January 11, 1971 in Records Vol. 12766, Page 509 of Cayahoga County, Ohio) conveying all parcels and deeds to National Lead Company in accordance with Plan of Liquidation of Master Metals, Inc., dated October 28, 1970.
1971	-	Master Metals Division became part of Central Region of Metal Division.
1976	-	Master Metals, Inc., merged into National Lead Company (name holder).

Currently Master Metals plant is identified as the Cleveland Plant of Metal Division.

Exhibit 7

Internal Memorandum

Date: January 2, 1979

To: J. Keverian Unit:

From: R. W. Merritt Unit:

Subject: Cleveland Property

Enclosed are four copies of a facilities summary and equipment list covering the Cleveland Plant.

It is estimated that disposition of equipment would require from four to six weeks.

R. W. Merritt

R. W. Merritt

RWM:iod
encl. - 4

PROPERTY SUMMARY

Division	Metals
Plant	Cleveland
Plant Address	2850 West Third Street Cleveland, Ohio 44113
Plant Area	Approximately 4.8 acres
Buildings:	
Office	5,200 sq. ft.
Warehouse - Round House	16,000 sq. ft.
Welfare Bldg.	2,850 sq. ft.
Manufacturing Bldgs.	20,024 sq. ft.
Other Misc.	2,000 sq. ft.
Total Buildings	46,074 sq. ft.
Plantwide Facilities	
Rail Siding	Two sidings - B&O R.R.
Truck Dock	Four spaces
Gate House	Yes
Truck Scale	34' X 30 ton capacity
Central Vacuum System	20 HP Lamson Blower
Utilities	
Electricity	500 KVA 3 Ph. 240 V 200 Amp 3 Ph. 240 V 400 Amp Single Phase 240 V
Water	3" line from B&O R.R. 3" line from City
Gas	4" Main @ 80 psi
Oil	49,000 gallons storage capacity
Sewer	City sewers
Major Operations	1. Secondary Lead Smelting & Refining 2. Mixed Metals Refining, Alloying and Casting

Major Production Facilities

1. Analytical Lab	(a)	Fully equipped Wet Lab
	(b)	Atomic Absorption Spectrophotometer
	(c)	Spectronic 20
	(d)	Air Sampling Equipment - Hi-Volume
	(e)	Grinding, Pulverizing and Sampling Lab
	(f)	Personnel Sampling Equipment.
2. Maintenance Shop	(a)	Compressed Air Equipment
	(b)	Welding & Cutting Equipment
	(c)	Miscellaneous Maintenance Equipment
3. Battery Decasing	(a)	Two complete saw lines
	(b)	Case Crushing System
	(c)	Top Crushing System
	(d)	Conveying and separating equipment
	(e)	Acid Collection and Neutralization System
4. Blast Furnace Smelting System	(a)	Blast Furnace with Skip Hoist Feed System
	(b)	Oxygen Enrichment System
	(c)	Metallurgical Dust Collection System
	(d)	Sanitary Dust Collection System
	(e)	Charge Weighing System with Remote Print-out Unit
	(f)	Complete Control Instrumentation
	(g)	All necessary auxiliary equipment.
	(h)	Water Cooling & Softening System
5. Refining Facilities	(a)	Two 90-Ton Capacity Kettles
	(b)	Seven 60-Ton Capacity Kettles
	(c)	One 45-Ton Capacity Kettle
	(d)	Temperature Control Systems
	(e)	Eight Casting Tables
	(f)	Sanitary Dust Collection System
	(g)	Agitators and Pumps
6. Reverberatory Furnace	(a)	One Reverberatory Furnace -6'9" X 12'9"
	(b)	Burners, Controls & Instrumentation
	(c)	Air Injection System
	(d)	Metallurgical Dust Collection System
	(e)	Sanitary Dust Collection System
7. Mixed Metals Facilities	(a)	Kettles with Burners & Instrumentation
	(b)	Various molds for ingots, bars, etc.
	(c)	Agitators & Pumps
	(d)	Other Auxiliary Equipment

8. Mobile Equipment

(a) Two 3000# Capacity Fork Trucks
(b) One 3500# Capacity Fork Truck
(c) One 4000# Capacity Fork Truck
(d) Five 5000# Capacity Fork Trucks
(e) Two 6000# Capacity Fork Trucks
(f) One 7000# Capacity Fork Truck
(g) Three Hough Endloaders Model 25-B
(h) One Hough Endloader Model H-30
(i) One Waldon Endloader 1-1/4 yard capacity
(j) Two Power Sweepers
(k) Two Dump Trailers
(l) One Yard Tractor

9. Spare Equipment

(a) Numerous Electric Motors
(b) Other miscellaneous spare equipment

RWM:iod
12/28/78

B & O R.R ROUNDHOUSE

R R TRACKS

B & O R R TURNTABLE

150'

PARTY WALL

WIRE FENCE

WAREHOUSE

COMB ROOF COVERING ON PLANK ON TIMBER & TIMBER SUPPORTS EARTH FLOOR

GATE

110'

135'

GATE HOUSE

WIRE FENCE

SLIDING GATE

PROPERTY LINE

MAINTENANCE BLDG. CONC FL.

B & O R R PROPERTY

PROPERTY LINE

12,000 GALLON ANHYDROUS AMMONIA TANK

R.R. STOP

WIRE FENCE

TRUCK DOCK

440'

LOADING DOCK

TRACK

STORAGE BINS

OFFICES

TRUCK SCALE

LAB. LAB. OFFICES

CONC. UNLOADING DOCK

560'

TRACK & B.O.R.R.

ELECTRIC SWITCH GEAR

COVERED STAIRS

YARD

TRANSFORMER

BINS

12,000 GAL. FUEL OIL TANK BURIED

FAN & ELEC MOTOR

ELEVATED PLATFORMS

BAG HOUSE

BRICK WALLS, PRECAST CONC. SLAB ROOF ON UNPROTECTED STEEL BEAMS

ELEVATED PLATFORMS

BLAST FURNACE

SMELTER

REVERB BLDG.

WELFARE BLDG.

8-CELL MORSLO BAG HOUSE

BAG STORAGE ROOM

WHITE METAL MFG CONC. FL.

YARD

P. T. R.

LEAD SOFTENING

STORAGE

GAS METER HOUSE

WIRE FENCE & PROPERTY LINE

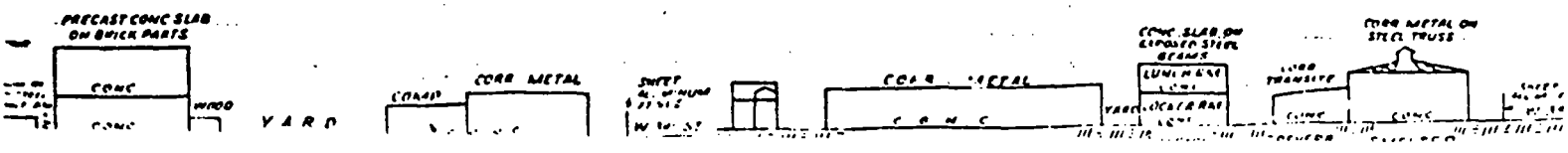
260'

210'

PROPERTY LINE

CITY OF CLEVELAND PROPERTY

CLEVELAND PLANT PLOT



Cleveland

EQUIPMENT LIST

Qty.	No.	Description	Size or Capacity	Condition	Stationary or Movable	Recommended Disposition	Time Req'd.	Comments
1		Blast Furnace	80 ton	Fair		Damage & Abandon		
1		Skip Hoist - N.L. Design Dwg. 5634-5-6	30 HP			Damage & Abandon		
1		Weigh Hopper - N.L. Design - Fairbanks - Pipe Lever Scale Dwg. 5634	2000 # Scale 1000 # Hopper	Fair		Damage & Abandon		
1		Vibration Feeder - Reynord FS 4880 S/N 9345-FS		Fair		Transfer or Sell		
1		Hydraulic Unit - Gaysron Model P45 8GF	1250 psi 45 gal. res. 10 HP motor	Fair		Transfer or Sell		
1		Roots Blower 1024 RAS-H Blower S/N 74739	2500 cfm	Fair		Transfer or Sell		
1		Air Weight Control Foxboro M/40 Stabilog S/N 1061433	0-30 oz. 2500 SCFM	Good		Transfer		
1		Combustion Box - N.L. design 00-5633		Poor		Abandon		
1		Therm-O-Syphon Tank N.L. design - 5' X 14' X 5'	350 cu/ft	Poor		Abandon		
1		Roof Exhaust Fan	3 HP motor cfm unknown	Fair		Abandon		
1		Bustle pipe burner	Maxon N.P.1-12 Assy.#62-20865 500,000 btu/hr	Good		Transfer		

EQUIPMENT LIST

Qty.	No.	Description	Size or Capacity	Condition	Stationary or Movable	Recommended Disposition	Time Req'd.	Comments
1		Dew Point Controller Foxboro Model 40 S/N 3357038	42 GR/SFC Max.	Good		Transfer		
1		Water Softener KISCO Twin - TKS - 60	120,000 max. grain	Good		Sell		
1		MOX Control Panel W.L. Flemming - N.L. Spec		Good		Transfer or Sell		
1		Boiler Fan MOX Fulton 20 E - Dual fuel w/Blow Down Package & Chemical feed. S/N B 329152	20 HP	Good		Transfer or Sell		
12		Slag Pots Perth Amboy type	approx. wt. 1400#	Fair		Transfer		
2	15-16	90-ton kettles	N.L Dwg. CU-1426 90 ton	Good		Transfer or Sell		Pots only - damage settings
7	1-2-3 10-12-13 14	60-ton kettles	82"ID X 72"deep 1" wall-1-1/2" dish American Tank	Good		Transfer or Sell		Pots only - damage settings
1	4	45-ton kettle	82" ID X 41" deep 1" wall X 1-1/2 dish	Good		Transfer or Sell		Pots only - damage settings
3		Casting tables - 65# pigs	16 cavity/table	Poor		Transfer or Sell		
1		Casting table - 65# pigs	16 cavity/table spare	Poor		Transfer or Sell		
4		Casting table frames	65# pigs	Fair - require castings		Sell		

EQUIPMENT LIST

Qty.	No.	Description	Size or Capacity	Condition	Stationary or Movable	Recommended Disposition	Time Req'd.	Comments
1		Air Compressor - Sullair Model # 16-75 C S/N 25861 AGF	75 HP 110 psig	Good		Transfer		
1		Air Compressor - Sullair Model # 10-25 - S/N 23735 EGE	25 HP 125 psig	Good		Transfer		
3		Mixers for 60-Ton Pots N.L. Design	25 HP 60 ton rpm approx. 182	Fair		Transfer		
1		Mixer for 45-Ton Pot N.L. Design	10 HP rpm approx. 182 - 45 ton	Fair		Transfer		
1		Mixer for 90-Ton Pot N.L. Design	35 HP rpm approx. 186 - 90 ton	Fair		Transfer		
4		Casting Pumps N.L. Design	3 HP 1200 rpm	Fair		Transfer		
7		Transfer Pumps N.L. Design	5 HP 1200 rpm	Fair		Transfer		
1		Metallurgical Baghouse 9 cell brick baghouse - N.L. design - approx. 26,000 sq.ft. of cloth		Fair		Abandon		
1		Intake Fan Chicago Blower - Size 41 S/N 68414-1	150 HP 33,000 CFM	Good		Transfer or Sell		

EQUIPMENT LIST

Qty.	No.	Description	Size or Capacity	Condition	Stationary or Movable	Recommended Disposition	Time Req'd.	Comments
1		Exhaust Fan Chicago Blower - Size 41 S/N 6841402	150 HP 44,000 CFM	Good		Transfer or Sell		
1		Sanitary Baghouse 2 - 5 cell - Series 39 - No. 390	10,720 sq/ft cloth	Fair		Sell		
1		Exhaust Fan - Norblo - Double Entry - No. 80H5	100 HP drive			Transfer or Sell		
2		Screw conveyors - Falk Reg. #307JSC-24	5 HP drive			Transfer or Sell		
1	15-16	Hoist Electric Dresser	10 ton			Transfer or Sell		
1	1-2-3	Hoist - Electric American Chain & Cable Model W622A 12M	12,000# capacity 17 FPM	Good		Transfer or Sell		
1	10-12-13	Hoist - Electric Load Lifter	10,000# capacity	Fair		Sell		
1	Maint.	Hoist - Electric - Budget	1 ton			Transfer or Sell		
1	4	Hoist - Electric - Shaw Box	8000# capacity	Poor		Sell		
1	top of furnace	Hoist - Electric Bridge Crane - Dresser	2-1/2 ton	Fair		Sell		
1		Bridge Crane - CKM	1 ton	Poor - Unused W.M. Bldg.		Sell or Abandon		
1		Truck Scale - Fairbanks-Morse Dial printer & lever system	34' platform	Good 60,000 lb.		Sell		

EQUIPMENT LIST

Qty.	No.	Description	Size or Capacity	Condition	Stationary or Movable	Recommended Disposition	Time Req'd.	Comments
1		Plant Scale - Fairbanks-Morse Dial	5'X6' platform 10,000#	Fair		Sell		
1		Shipping Scale - Fairbanks-Morse Type S-4-10 w/printer	9 X 7 platform 10,000#	Good		Sell		
1		Reverb Furnace N.L. Design - 6'9 X 12'9 hearth	25 ton batch	Good		Damage & Abandon		
1	15-16	Combustion Blower - North American				Transfer or Sell		
1	10-12	Combustion Blower - North American - 2316-26-1-7.5	16 oz			Transfer or Sell		
1	13-14	Combustion Blower - North American				Transfer or Sell		
1	1-2-3	Combustion Blower - North American				Transfer or Sell		
1	4	Combustion Blower - North American				Transfer or Sell		
1	Reverb	Combustion Blower - North American				Transfer or Sell		
1	Maint.	Steam Jenny - Superpower 750 Jenny		Good		Transfer or Sell		
1	Maint.	Air Compressor - Curtis CU968A	3 HP			Transfer or Sell		
1	Maint.	Arc Welder - 200 Amp Hobart	200 amp.	Fair		Transfer or Sell		
1		Oil Pump System - Viking Model No. G G195D	450 GPH @ 100 psi ea	Good		Transfer or Sell		
10		North American Burners -6422-7-A Dual Fuel		Good		Transfer or Sell		Could be used at Granite City

EQUIPMENT LIST

y.	No.	Description	Size or Capacity	Condition	Stationary or Movable	Recommended Disposition	Time Req'd.	Comments
		North American Burners - 6422-5 Dual Fuel		Good		Transfer		
		Central Vacuum System - Lamson Blower - 515 Multistage	20 HP 625 CFM @ 8.5" Hg	Poor		Sell		

EQUIPMENT LIST

Qty.	Equip. No.	Manufacturer	Model	Serial #	Capacity	Year	Lease/ Own	Condition	Comments	Recommended Disposition
1	27	Clark - Rotating Fork for pots	C500-50	355-211-2572	5000#		Leased	Good		Transfer
1	33	Yale - Fork	L51C-030	AK 145306	3000#	6/68		Fair		Sell
1	38	Yale - Fork	L83P050	P184768	5000#	11/70		Fair		Transfer or Sell
1	42	Clark - Fork	CF 25	488-597	2500#	1964		Poor		Sell
1	44	Clark - Fork	C500-30	355-1280-2548	5000#	12/72	Leased	Good		Transfer
1	45	Hough Payloader	H25B	3340203007928	3500#	10/73		Good		Transfer
1	47	Hyster - Fork	5-40-C	C2D-9685P	7000#			Poor		Sell
1	51	Hough - Payloader	H-30	34003040005162X	20 cu.ft.	11/73		Poor		Sell
1	52	Clark - Fork	C500Y55	Y355-134-8-3225	5500#	1975	Leased	Good		Transfer
1	53	Clark - Fork	C-500.55	C55-3373130	4000#	1975	Leased	Good		Transfer
1	54	Waldon - Scoop	6000	10725	1-1/4 yd.	1976		Good		Transfer
1	55	Hough - Payloader	H-25-B	334020300086Y6	20 cu.ft.	6/77		Good		Transfer
1	56	Hough - Payloader	H-25-B	33402030008590	20 cu.ft.	6/77		Good		Transfer
1	58	Clark - Fork	C500-35	355-8-4047-1078	3500#	10/78	Leased	Excellent		Transfer
1	59	Clark - Fork	C-500-50	355-183-4047-1078	5000#	10/78	Leased	Excellent		Transfer
1	60	Clark - Rot.Clamp	C500-YS80	Y685-974130	6050#	11/78	Leased	Excellent		Transfer
1	61	Clark - Rot.Clamp	C500-YS80	Y685-984130	6050#	11/78	Leased	Excellent		Transfer
1	-	Sweeper - Power Tennant	93	921491		1974		Good		Transfer
1	-	Sweeper - Push Tennant	42	187747				Poor		Sell

EQUIPMENT LIST

Qty.	Equip. No.	Manufacturer	Model	Serial #	Capacity	Year	Lease/ Own	Condition	Comments	Recommended Disposition
1		International Tractor		457240G285233		1968		Poor		Sell
1		Dump Trailer	Steco-Semi	1145842	40,000#	1958		Poor		Sell
1		Dump Trailer Fruehauf	YRR5518	FW110029	40,000#	1956		Poor		Sell
1		Tractor	Mack NB 23C	U6155T1565				Good	Yard use	Transfer or Sell

EQUIPMENT LIST

Qty.	No.	Description	Size or Capacity	Condition	Stationary or Movable	Recommended Disposition	Time Req'd.	Comments
1		Top Temp. Recorder - Brown Inst. Model 152 X 139-5-W-7-11 S/N 774200	0-2000°F	Good		Transfer or Sell		
1		Baghouse Temp. Control - Brown Inst. - Model 142R13-PSH-14-K-1-11 S/N UO 16367600	0-300°F	Good		Transfer or Sell		
1		Baghouse - Sanitary Norblo #234 #45 Fan		Poor - Unused		Sell		
2		Recirculating Water Pump Deming - F16 4011 Size 3M - Type SF - 1750 RPM		Fair - 1 spare Fair - 1 service		Sell Sell		
1		AA-6 Atomic Absorption Spectrophotometer		Good		Transfer		
1		AA-3 Atomic Absorption Spectrophotometer updated to AA-5		Fair - not in use		Sell		
1		Air compressor		Good		Transfer		
14		Hollow cathode lamps for A.A.		Good		Transfer		
4		E.D.L. Lamps for A.A.		Good		Transfer		
1		E.D.L. Power Supply for A.A.		Good		Transfer		
1		Analytical Balance - Mettler		Good		Transfer		

EQUIPMENT LIST

Qty.	No.	Description	Size or Capacity	Condition	Stationary or Movable	Recommended Disposition	Time Req'd.	Comments
2		Ohaus Balance - 1 small, 1 large		Good		Transfer		
2		Bausch & Lomb Spectronic 20		Good		Transfer		
2		Magnetic Stirrers 1 Ceneo; 1 Corning		Good		Transfer		
1		Lab scales	200 lbs.	Fair		Transfer		
1		Vacuum Pump		Fair		Transfer		
1		Refrigerator - Small unit		Fair		Sell		
2		Ovens - Drying; 1 small; 1 large		Fair		Transfer or Sell		
2		Hi Volume Air Sampler - air quality		Fair		Transfer		
1		Calibration Unit - for Hi Volume		Good		Transfer		
4		MSA Pumps - Personal		Good		Transfer		
1		MSA Calibration Unit - for Personal		Good		Transfer		
1		Batam Pulverizer - Mickro		Good		Transfer		

EQUIPMENT LIST

Qty.	No.	Description	Size or Capacity	Condition	Stationary or Movable	Recommended Disposition	Time Req'd.	Comments
1		Pulverizer - Slag & Matte - Clear		Fair		Transfer or Sell		
1		Bell Grinder - Drosses		Fair		Transfer or Sell		

WM:iod 12/28/78

NL INDUSTRIES INC.
METAL DIVISION
CLEVELAND
MACHINERY & EQUIP

RUN DATE 07/17/79 FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT G

DEPT	S-DPT /PRO	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION		DEPR BEGIN	EST. LIFE	D M	T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
180	000	4531	97917055-00	1	ARSENIC MIXER FEEDER		1/60	20-00	5	0	700.00	700.00		
180	000	4531	97917056-00	1	5 TON REPLACEMENT HOIST	165M6	1/64	15-00	5	0	2,321.26	2,321.26		
180	000	4531	97917057-00	1	SETTING #5 COVER DOOR	M-4	1/68	20-00	5	0	433.26	309.76	1.80	10.83
180	000	4531	97917058-00	2	90-TON KETTLES	16667	1/69	20-00	5	0	56,852.65	35,532.88	236.88	1,421.32
180	000	4531	97917060-00	1	PUMP MIXER CABLE STRIPPER		1/62	20-00	5	0	1,298.13	1,298.13		
180	000	4531	97917062-00	1	KETTLES SETTINGS		1/71	20-00	5	0	10,570.63	4,492.50	44.04	264.26
180	000	4531	97917065-00	1	POT 11 PILOT SYSTEM SAFETM-5		1/69	20-00	5	0	826.50	516.60	3.44	20.66
180	000	4531	97917067-00	1	HOIST AND SWIVEL		1/62	20-00	5	0	261.39	261.39		
180	000	4531	97917085-00		BURNER PIT VENTILATION	1030	1/79	20-00	5	7	1,383.05	31.44	6.28	31.44
					GL EXPEN ACCT TOTALS						143,213.51	81,611.33	503.30	3,013.76
					SUB-DEPT/PROD TOTALS						143,213.51	81,611.33	503.30	3,013.76
					DEPARTMENT TOTALS						143,213.51	81,611.33	503.30	3,013.76
400	000	4531	97917003-00	1	INGERSOLL RAND COMPRESSOR		1/73	20-00	5	0	3,142.50	1,026.08	13.09	78.56
400	000	4531	97917004-00	1	DEVILLBISS AIR COMPRESSOR		1/65	20-00	5	0	1,121.00	1,121.00		
400	000	4531	97917007-00	1	CENTRAL VACUUM SYSTEM		1/74	20-00	5	0	10,637.51	2,998.96	44.32	265.93
400	000	4531	97917019-00	1	POWER PANEL DISTRI SYSTEM	11023	1/58	20-00	5	0	6,787.09	6,787.09		
400	000	4531	97917021-00	1	CONVERT FUEL OIL NAT GAS	11103	1/58	20-00	5	0	14,446.54	14,446.54		
400	000	4531	97917044-00	1	AIR COMPRESSOR	M-6	1/70	20-00	5	0	2,246.74	1,179.55	9.36	56.16
400	000	4531	97917047-00	10	BUTTON MOLDS		1/48	20-00	5	0	785.00	785.00		
400	000	4531	97917059-00	1	8000 GAL TANK MARLOW PUMP	M-8	1/72	20-00	5	0	4,133.62	1,561.67	17.22	103.33
400	000	4531	97917064-00	1	ALUMINUM MELTING FURNACE	M-1	1/73	20-00	5	0	1,750.00	568.74	7.29	43.74
400	000	4531	97917077-00		INSTALL OIL TANK	MD586	1/76	20-00	5	0	688.75	120.54	2.87	17.22
400	000	4531	97917077-01		INSTALL OIL TANK BURNER	MD586	1/77	20-00	5	4	44,489.12	5,561.14	185.37	1,112.22
400	000	4531	97917080-00		OSHA COMPLIANCE PROJECTS	HD711	1/78	20-00	5	7	17,408.23	1,305.61	72.53	435.20
400	000	4531	97917082-00		FUEL OIL STG & COMB EQUIP	MD794	1/78	20-00	5	7	79,415.00	5,956.13	330.89	1,985.38
400	000	4531	97917082-01		FUEL OIL STG & COMB EQUIP	MD794	1/79	20-00	5	7	79,153.66	1,798.95	359.79	1,798.95
					GL EXPEN ACCT TOTALS						266,204.76	45,217.00	1,042.73	5,896.69
					SUB-DEPT/PROD TOTALS						266,204.76	45,217.00	1,042.73	5,896.69
					DEPARTMENT TOTALS						266,204.76	45,217.00	1,042.73	5,896.69
610	000	4531	97917075-00	1	NEW TRUCK PLATFORM SCALE		1/52	20-00	5	0	6,690.66	6,690.66		
					GL EXPEN ACCT TOTALS						6,690.66	6,690.66		
					SUB-DEPT/PROD TOTALS						6,690.66	6,690.66		
					DEPARTMENT TOTALS						6,690.66	6,690.66		

RUN DATE 07/17/79 NL INDUSTRIES INC. METAL DIVISION CLEVELAND FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT G MACHINERY & EQUIP

DEPT	S-OPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	DM	IT C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
120	000	4531	97917015-00	1	BATTERY SAW MIST COLLECTOMD347	1/74	20-00	5	0	4,906.84	1,355.87	20.44	122.67
120	000	4531	97917017-00	1	ANHYDROUS AMMONIA TANK 16187	1/68	20-00	5	0	11,487.72	8,213.75	47.86	287.20
120	000	4531	97917022-00	1	GRUENDLER HAMMERMILL 11364	1/59	20-00	5	0	3,464.29	3,464.29		
120	000	4531	97917024-00	1	BATTERY DECASING EQUIPMEN16413	1/69	20-00	5	0	17,651.41	11,032.14	73.55	441.30
120	000	4531	97917025-00	1	MISC BATTERY DECASING EQU16413	1/69	20-00	5	0	10,782.50	6,739.08	44.93	269.58
120	000	4531	97917026-00	1	TAX CLASSIFICATION BDE 16413	1/69	20-00	5	0	12,705.60	7,941.00	52.94	317.64
120	000	4531	97917027-00	1	SEPARATOR INSTALLATION M-1	1/69	20-00	5	0	5,170.01	3,231.24	21.54	129.24
120	000	4531	97917028-00	1	DUST COLLECTOR FOR TOP SE	1/70	20-00	5	0	1,329.22	697.84	5.54	33.24
120	000	4531	97917029-00	1	ACID NEUTRALIZATION EQUIP16413	1/69	20-00	5	0	4,246.59	2,654.02	17.69	106.16
120	000	4531	97917079-01		BATTERY TOP SEPERATOR	1/62	20-00	5	0	4,400.00	3,849.99	18.33	109.99
					GL EXPEN ACCT TOTALS					76,144.18	49,179.22	302.82	1,817.02
					SUB-DEPT/PROD TOTALS					76,144.18	49,179.22	302.82	1,817.02
					DEPARTMENT TOTALS					76,144.18	49,179.22	302.82	1,817.02
140	000	4531	97917010-00	1	ROOTS CONNERVILLE BLOWER	1/66	20-00	5	0	11,192.25	11,192.25		
140	000	4531	97917012-00	1	BLAST REVERB DRAFT CONTROMD349	1/74	20-00	5	0	5,554.75	1,674.58	23.14	138.87
140	000	4531	97917013-00	1	BLAST FURNACE OFFTAKE MD350	1/74	20-00	5	0	7,705.24	2,123.91	32.10	192.63
140	000	4531	97917023-00	1	CARRIER VIBRATIN CONVEYOR11427	1/59	20-00	5	0	5,743.15	5,743.15		
140	000	4531	97917030-00	1	BUILDING ADDITION BLAST F16667	1/69	20-00	5	0	66,755.26	41,722.03	278.14	1,668.89
140	000	4531	97917031-00	1	FURNACE ALLIED EQUIPMENT 16667	1/69	20-00	5	0	92,009.10	57,505.72	383.37	2,300.22
140	000	4531	97917032-00	1	ELECTRICAL BLAST FURNACE 16667	1/69	20-00	5	0	3,705.24	2,315.76	15.44	92.64
140	000	4531	97917033-00	1	OXYGEN ANALYZER M-6	1/72	20-00	5	0	1,780.00	667.51	7.41	44.51
140	000	4531	97917034-00	1	VIEWING SCALE FOREMANS OFM-3	1/71	20-00	5	0	1,854.30	788.13	7.72	46.37
140	000	4531	97917037-00	1	WATER JACKET THIMBLE FUMM	1/71	20-00	5	0	1,826.54	776.30	7.61	45.66
140	000	4531	97917063-00	1	MOLD RACK WITH 8 SUPPORTS	1/72	20-00	5	0	427.85	182.79	1.78	10.68
140	000	4531	97917071-00	1	DIAL SCALE	1/49	20-00	5	0	1,300.00	1,300.00		
140	000	4531	97917076-00	1	AIR WEIGHT PNEUMATIC FLOWM-3	1/64	15-00	5	0	754.48	754.48		
140	000	4531	97917081-00		OXYGEN INJECT BLAST FURN MD762	1/78	20-00	5	7	51,230.77	3,842.30	213.46	1,280.76
140	000	4531	97917081-01		OXYGEN INJECT BLAST FURN MD762	1/79	20-00	5	7	2,427.86	55.18	11.03	44.14
140	000	4531	97917084-00		LEAD ITEMS FOR FURN SHUT MD928	1/79	20-00	5	7	19,409.76	441.14	88.22	441.14
					GL EXPEN ACCT TOTALS					273,676.55	131,085.23	1,069.42	6,306.51
					SUB-DEPT/PROD TOTALS					273,676.55	131,085.23	1,069.42	6,306.51
					DEPARTMENT TOTALS					273,676.55	131,085.23	1,069.42	6,306.51
143	000	4531	97917035-00	1	REVERERATORY FURNACE	1/35	20-00	5	0	4,293.47	4,293.47		
					GL EXPEN ACCT TOTALS					4,293.47	4,293.47		
					SUB-DEPT/PROD TOTALS					4,293.47	4,293.47		
					DEPARTMENT TOTALS					4,293.47	4,293.47		

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NL INDUSTRIES
CAPITAL APPROPRIATION REQUEST

PROJECT TITLE: Repair & Rehabilitation of Battery Breaking Operation	PROJECT CLASSIFICATION	APPROPRIATION NUMBER: DIVISION / CORPORATE
DIVISION/GROUP: Metals	[X] I-COST IMPROVEMENT	[ ] Over-Expenditure [ ] Cancellation
PROFIT CENTER: North Central	[ ] II-PRODUCT IMPROVEMENT	BUDGET PROPOSAL NUMBER & AMOUNT: Budget # C-N-18-N Not budgeted; Not substituted
LOCATION: Cleveland, Ohio	[ ] III-EXPANSION	DATE: June 30, 1978
	[X] IV-NECESSITY	

PROJECT DESCRIPTION

Rehabilitate two-story building, repair machinery and equipment, and install a low-speed vertical saw.

PROJECT EXPENDITURE

	AMOUNT REQUESTED
LAND	
BUILDINGS	$ 40,443.00
MACHINERY & EQUIPMENT	140,621.00
OTHER FIXED CAPITAL	
TOTAL FIXED CAPITAL	$181,064.00
PROPERTY EXPENSE	
TOTAL APPROPRIATION	$181,064.00
QUALITY OF ESTIMATE C	
ESCALATION ALLOW. 5 %	$ 7,243.00
CONTINGENCY ALLOW. 20 %	$ 28,970.00

PROJECT STATISTICS AND PROFITABILITY:

PROJECT START BY 9/15/78 COMPLETE BY 12/1/78
COMMITMENT EXPIRATION DATE 6/1/79
FIRST NORMAL YEAR OF OPERATIONS 1979
DIVISION ROA AT WAS %
PROFIT CENTER ROA AT WAS %

CASH PAYBACK PERIOD 1.9 YEARS

	BUDGET PROPOSAL	THIS APPROPRIATION
ROI THRU FIRST 5 YEARS	%	58.5%
ROI THRU CASH PAYBACK	%	%
DCF-RETURN	%	50+ %
NET PRESENT VALUE @ 10 % IS	$	561,000

SUMMARY OF JUSTIFICATION: BENEFITS, ECONOMIC ASSUMPTIONS, AREAS OF UNCERTAINTY & ALTERNATIVES

Completion of this project will result in the following savings and advantages:

1. The ultimate shutdown of the Cleveland decasing operation would result in shipping all batteries received on a conversion basis from Cleveland to the Pedricktown plant and purchasing remaining battery plate requirements from outside sources. This would result in a loss of $115,000 net income per year.

2. Increase the number of batteries decased without proportionately increasing total decasing cost, thus reducing decasing cost from $82.31/ton to $45.22/ton.

3. The purchase of battery plates and tops from an outside breaker was considered in lieu of completing this project. Outside battery decasing is not considered as a viable alternative because NL would be putting our competition (the breaker himself) into market control of material. Further, the outside breaker would be competing with our Purchasing Managers who are buying at dealer level. This competition would drive the cost of junk batteries up and ultimately result in higher cost for blast furnace feed material.

APPROPRIATION APPROVALS

PLANT	DIVISION	GROUP
	[illegible] 7/7/78	
SAFETY APPROVAL [illegible]	ENVIRONMENTAL APPROVAL [illegible]	EXECUTIVE COMMITTEE

PROBLEM

Production plans for decasing batteries at the Cleveland plant require a substantial increase over present capabilities. Present capabilities average about 1400 batteries per day (single shift operation) while current requirements are about 4000 batteries per day. Current requirements cannot be reached by operating on a three-shift basis due to excessive machinery and equipment downtime. Machinery and equipment within the battery decasing facility is in an extremely run-down condition and requires almost constant maintenance. The building which houses the battery decasing operation has deteriorated to the extent that any further deterioration will affect structural integrity.

SOLUTION

To meet the above-mentioned requirements, it is proposed to rebuild the existing battery decasing building as well as machinery and equipment. The two existing high-blade speed saw lines will be replaced with a single low-blade speed unit which will provide comparable throughput with less maintenance. In this way, an average production of 2000 units per shift can be maintained.

Since building repairs and revisions can best be completed with equipment removed, it is proposed to remove most equipment items for rebuilding out of plant while building repairs and acid-proofing are completed. It is anticipated that performing machinery repairs in contractor's shop will expedite the most time-consuming part of this project.

ENGINEERING

See Scope of Work Items 1 through 54.

Bids for the work proposed in this request were solicited from many suppliers in the Cleveland area. General contractors were asked to bid on the complete job as well as the building portions of the request. The only bids received from general contractors covered six items of building repair. A machinery contractor was the only one willing to bid on all ten items of machinery work. Several contractors bid on electrical work or restricted portions of the requirements. A total of 23 sources were invited to bid on this project and eight responded with bids.

After reviewing all bids, Norris Bros., the machinery contractor, was invited to rebid the entire job as a general contractor. Norris Bros.' final bid did not include plastic piping required in the neutralizing area, revisions to the mist collection system, or repair parts required for the box and top choppers. Other items not included are itemized and estimated in the attachment showing total costs.

Although Norris Bros. are the only contractor considered for the major portion of this project, their selection was based on good reports from several contractors including one who indicated his willingness to be a subcontracto for them. In addition, at least two contractors who declined to even consider our requirements recommended Norris Bros. as a possible source. Finally, in dealing with estimators, take-off men, and owners the representative from Norris Bros. had more interest in the project and all its details than any other individual concerned.

It is estimated that it will require one week to dismantle equipment, three weeks to repair the building, four weeks to rebuild the equipment (which can proceed concurrently), two weeks to erect the equipment with an additional week to check operation - for a total project time of eight weeks. Poor weather might hamper the building repair, but should not delay the overall project time. In some cases, especially such as motors, repair or rebuild costs may exceed replacement cost. Such items will be reviewed as soon as the project is started so that lead time for replacement will be available. This determination has already been made for the Bauer-top machine which would cost $13,992.00 at 16 weeks delivery.

The total cost of this request is $181,064.00. A detailed breakdown of this cost is included in the attachments.

JUSTIFICATION

Completion of this project will result in the following savings and advantages:

1. The ultimate shutdown of the Cleveland decasing operation would result in shipping all batteries received on a conversion basis from Cleveland to the Pedricktown plant and purchasing remaining battery plate requirements from outside sources. This would result in a loss of $115,000 net income per year.

2. Increase the number of batteries decased without proportionately increasing labor and overhead costs, thus reducing decasing costs.

Battery Decasing Cost Comparison - Cleveland

1977	$000	Projected	$000
Labor & Fringes	47	Labor & Fringes	124
Maint. Mat'l. & Labor	37	Maint. Mat'l. & Labor	59
Supplies	18	Supplies	35
Purch. Services	11	Purch. Services	23
Occup.	57	Occup.	66
Supervision & Admin.	17	Supervision & Admin.	41
Material Handling	45	Material Handling	59
Total Cost	232	Total Cost	407

Present Cost	$232,000.00	
Tons metal generated 1977	2817 =	$82.31/ton
Projected cost - 2 8-hr. shifts	$407,000.00	
Projected tons metal generated	9000 =	$45.22/ton

3. Increase reliability of the battery decasing system, thus providing adequate in-plant generation of blast furnace feed material.

4. Excessive sound levels and the generation of acid mists emanating from the existing saw operation result in environmental problems which are extremely difficult and costly to rectify. The proposed low-speed saw will eliminate both the above-mentioned problems as well as improve working conditions within the battery decasing facility.

Purchasing battery plates and tops from an outside breaker was considered in lieu of completing this project. This alternative is not considered viable for the following reasons:

a. External breaking costs can change, since most contracts can be voided with a 30 days' written notice.

b. By increasing business with external breakers, we are essentially putting our competition (the breaker himself) into market control of material. By being guaranteed the volume base that only a company such as NL can provide, the external breaker accomplishes the following:

- Covers fixed cost.
- Enters local market for additional batteries.
- Competes against our purchasing managers who are also buying at dealer level and drives prices up.
- Can offer breaking service to our major competitors.

This request is based on a monthly capability of 90,000 batteries. This rate makes no provision for possible variation and availability or the difficulties that might be encountered with frozen batteries in extremely cold weather. It does include time for regular scheduled maintenance and clean-up of the operating area at the end of each day's operation. It must be emphasized that completion of the work described will only allow planned production rates for a very limited time if regular scheduled maintenance of this equipment is not properly performed. With proper maintenance, the work detailed in this request should result in two to three years of full production with minimum lost time for non-scheduled maintenance.

CAPITAL APPROPRIATION REQUEST
PROJECT SUMMARY

Location: Cleveland

Appropriation No.

Item No.	Item Description	Depr. Life	Account Class.	Project Expenditures		
				Property Expense	Capital Cost	Total
1.	Building Repair (Items 1 thru 6 per attachment 3)	40	17410		32,368.00	32,368.00
2.	Machine Repair (Items 11 thru 54 per attachment 3)	20	17600		81,633.00	81,633.00
3.	Equipment (Items A thru E per attachment 2)	20	17600		5,350.00	5,350.00
4.	Fabricate and install a stainless steel turnover guide including pans and piping	20	17600		3,500.00	3,500.00
5.	Fabricate and install a low speed vertical saw	20	17600		22,000.00	22,000.00
	Subtotal				144,851.00	144,851.00
	Escalation 5%				7,243.00	7,243.00
	Contingency 20%				28,970.00	28,970.00
	PROJECT TOTALS				181,064.00	181,064.

CAPITAL APPROPRIATION REQUEST
PROJECT DETAIL

Location: Cleveland

Appropriation No.

Item No.	Description of Item	Depreciation Life	Account Class.	Project Expenditures		
				Material	Labor	Total
1.	Building Repair (Items 1 thru 6 per attachment 3)				32,368.00	32,368.00
2.	Machine Repair (Items 11 thru 54 per attachment 3)				81,633.00	81,633.00
3.	Equipment (Items A thru E per attachment 2)				5,350.00	5,350.00
4.	Fabricate and install a stainless steel turnover guide including pans and piping				3,500.00	3,500.00
5.	Fabricate and install a low-speed vertical saw				22,000.00	22,000.00
	Subtotal				144,851.00	144,851.00
	Escalation 5%				7,243.00	7,243.00
	Contingency 20%				28,970.00	28,970.00
	PROJECT TOTALS				181,064.00	181,064.00

ECONOMIC JUSTIFICATION

$ (000)

- [ ] WITH APPROPRIATION
- [ ] WITHOUT APPROPRIATION
- [x] INCREMENTAL

PROFIT CENTER: Cleveland PROJECT TITLE: Repair Battery Breaking DIV. APPROP. NO.

Furnace Feed Required (Metal)	CURRENT YEAR 1978	2 1979	3 1980	4 1981	5 1982	5 YEAR TOTAL	6 1983	7 1984	8 1985	9 1986	10 1987	TOTAL TO PAYBACK
	CALENDAR YEARS											
1. Volume: Units tons		19300	19300	19300	19300		19300	19300	19300	19300	19300	
2. Avg. Realized Price $												
3. NET SALES												
COSTS, EXPENSES & INCOME:												
4. Direct Material		(504)	(504)	(504)	(504)		(504)	(504)	(504)	(504)	(504)	
5. Direct Labor												
6. Indirect Labor												
7. Supervision												
8. Fringe Benefits												
9. Utilities												
10. Maintenance												
11. Operating Cost		269	269	269	269		269	269	269	269	269	
12.												
13. Gross Profit Contribution		235	235	235	235		235	235	235	235	235	
14.												
15. Book Depreciation		6	8	8	8		8	8	8	8	8	
16. Cost Depletion												
17. Gross Trading Margin		229	227	227	227		227	227	227	227	227	
18. Distribution Expense												
19. Net Trading Margin												
20. Sales & Marketing Expense												
21. Research & Development												
22. Administration Expense												
23.												
24.												
25. Operating Profit												
26. Property Expense												
27. Start-up Costs												
28. (Gain) Loss on Disposals		2	–	–	–		–	–	–	–	–	
29.												
30. BOOK PRE-TAX PROFIT		227	227	227	227		227	227	227	227	227	
31. State Tax @ 2.4 %		5	5	5	5		5	5	5	5	5	
32. Sub-Total (30–31)		222	222	222	222		222	222	222	222	222	
33. Federal Tax @ 48.0%		107	107	107	107		107	107	107	107	107	
34. Tax Credits	11	3	–	–	–		–	–	–	–	–	
35. NET INCOME (32–33+34)	11	108	115	115	115	464	115	115	115	115	115	

NL INDUSTRIES

ECONOMIC JUSTIFICATION

$ (000)

PROFIT CENTER: Cleveland PROJECT TITLE: Repair Battery Breaking DIV. APPROP. NO.

CASH GENERATION:	CURRENT YEAR 1978	2 1979	3 1980	4 1981	5 1982	5 YEAR TOTAL	6 1983	7 1984	8 1985	9 1986	10 1987	TOTAL TO PAYBACK
	CALENDAR YEARS											
36. BOOK PRE-TAX PROFIT (30)	–	227	227	227	227		227	227	227	227	227	
37. Add Back Lines (15+16+28)		8	8	8	8		8	8	8	8	8	
38. Accelerated Depreciation	9	21	22	20	18		16	13	11	9	7	
39. Percentage Depletion												
40. Sub-Total (36+37−38−39)	(9)	214	213	215	217		219	222	224	226	228	
41. State Tax @_____%	–	5	5	5	5		5	5	5	5	5	
42. Sub-Total (40−41)	(9)	209	208	210	212		214	217	219	221	223	
43. Federal Tax @_____%	(4)	100	100	101	102		103	104	105	106	107	
44. Tax Credits	11	3										
45. Sub-Total (42−43+44)	6	112	108	109	110		111	113	114	115	116	
46. Accelerated Depreciation	9	21	22	20	18		16	13	11	9	7	
47. Percentage Depletion												
48. Disposal of Obsolete Assets												
49. Project Terminal Value											35	
50. CASH GENERATION (45+46+47+48+49)	15	133	130	129	128		127	126	125	124	158	
51. Cum. Cash Generation	15	148	278	407	535		662	788	913	1037	1195	
ANNUAL INVESTMENT REQUIREMENTS:												
52. Land												
53. Buildings	35	5										
54. Machinery & Equipment	106	35										
55. Other Fixed Capital												
56. Total Fixed Capital	141	40										
57.												
58. Accounts Receivable												
59. Inventories												
60. Other Assets												
61. ANNUAL INVESTMENT (56+57+58+59+60)	141	40										
62. Cumulative Gross Investment	141	181	181	181	181		181	181	181	181	181	
RETURN ON INVESTMENT:												
63. Cum. Book Value of Disposals												
64. Cum. Book Depreciation	–	6	14	22	30		38	46	54	62	70	
65. Net Assets (62−63−64)	141	175	167	159	151	793	143	135	127	119	111	
66. RETURN ON INVESTMENT	7.8	61.7	68.9	72.3	76.2	58.5	80.4	85.2	90.6	96.6	103.6	
67. NET CASH FLOW (50−61)	(126)	93	130	129	128	354	127	126	125	124	158	
68. CASH PAYBACK	.6	1.0	.3									

A – 133 n – 2

PROJECT TITLE: Cleveland - Repair & Rehabilitation of Battery Breaking Operation

MEMO:

DIV. APPROP. NO. _____

INTERPOLATION

1. A = NET PV @ R % = _____
2. B = NET PV @ (R+5) % = _____
3. C = - B = _____
4. A + C = DELTA = _____
5. DCF-Return = R% +(5x A ÷ DELTA)
   = ____ +(5x____ ÷ _____)

DCF-Return = 50+ %

Study Year	Cal. Year	Net Cash (Outflow) Inflow	5%		10%		15%		20%		25%		30%		35%		40%		45%		50%	
1	1978	(126)	.976		.953	(120)	.933		.913		.894		.877		.861	(108)	.845		.830		.816	(103)
2	1979	93	.929		.867	81	.811		.761		.716		.675		.638	59	.604		.573		.544	51
3	1980	130	.885		.788	102	.705		.634		.572		.519		.472	61	.431		.395		.363	47
4	1981	129	.843		.716	92	.613		.528		.458		.399		.350	45	.308		.272		.242	31
5	1982	128	.803		.651	83	.533		.440		.366		.307		.259	33	.220		.188		.161	21
6	1983	127	.765		.592	75	.464		.367		.293		.236		.192	24	.157		.130		.108	14
7	1984	12[illegible]	[illegible]		.538	68	.403		.306		.234		.182		.142	18	.112		.089		.072	9
8	1985	125	.694		.489	61	.351		.255		.188		.140		.105	13	.080		.062		.048	6
9	1986	124	.661		.445	55	.305		.212		.150		.108		.078	10	.057		.042		.032	4
10	1987	158	.629		.404	64	.265		.177		.120		.083		.058	9	.041		.029		.021	3
TOTAL (1 to 10)		1014				561										164						83
11	19		.599		.368		.231		.147		.096		.064		.043		.029		.020		.014	
12	19		.571		.334		.200		.123		.077		.049		.032		.021		.014		.009	
13	19		.543		.304		.174		.102		.061		.038		.023		.015		.010		.006	
14	19		.518		.276		.152		.085		.049		.029		.017		.011		.007		.004	
15	19		.493		.251		.132		.071		.039		.022		.013		.008		.005		.003	
16	19		.469		.228		.115		.059		.031		.017		.010		.005		.003		.002	
17	19		.447		.208		.100		.049		.025		.013		.007		.004		.002		.001	
18	19		.426		.189		.087		.041		.020		.010		.005		.003		.002		.001	
19	19		.406		.171		.075		.034		.016		.008		.004		.002		.001		.001	
20	19		.386		.156		.066		.029		.013		.006		.003		.001		.001		nil	
TOTAL (1 to 20)																						

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Attachment 1

Bids were solicited from the
following sources for work as indicated:

Farasey Steel Fabricators,	4000 Iron Ct., Cleveland; to rebuild all machinery. Bid: 2 crushers @ $15,000.00 each.
Schroll Construction Co.,	671 E. 200th St., Cleveland; to do all building repair. Bid: $47,272.00. Also to erect duplicate building on present foundation. Bid: $131,000.00.
West Shore Electric Co.,	13000 Athens Ave., Lakewood; to so electrical work, declined.
D. W. Rankin Inc.,	20800 Center Ridge Rd., Rocky River; General Contractor, declined.
Platt Construction Co.,	8905 Lake, Cleveland; General Contractors, Bid: building repair $31,163.00.
Reserve Electric Co.,	2090 E. 19th. St. Cleveland; to do electric work; Bid: $10,732.00.
Hoertz Electric Co.,	24453 Bagley, Cleveland; to do electric work; Bid: $5000.00.
Reed & Campbell Co.,	4868 Chaincraft, Garfield Hts.; to do plumbing, declined.
Steel Fabricators Co.,	Center & Spruce, Cleveland; to rebuild all machinery, declined.
The Thornton Co.,	6901 Morgan Ave. , Cleveland , General Contractor, declined.
Lippman Plumbing & Heating Co.,	1635 E. 55th Street, Cleveland; to do plumbing, Bid: Tank removal and replacement and plastic piping, $3596.00.
Carey Construction Co.,	5755 Granger Rd., Cleveland; General Contractor, declined.
John F. Cleary Construction Co.	1495 Warren Ave., Cleveland, General Contractor, Bid: Building repair $74,168.00.

Norris Bros., 2138 Davenport, Cleveland, Mechanical Contractors.
Initial Bid for four building items $21,790.00.
Repair but not removal of all machines $48,575.00:
Bid totalled $70,365.00.

The following contractors were not interested in considering our requirements.

Dunbar Construction Co.
Robert Jeske Co.
Larry Bernosky Const. Co.
Drake Construction Co.
J & L Contractors
R. A. Klingler
Nate Saddler
Siprak- Jekel Const. Inc.
United Masonry & Cement Construction Co.

REPAIR AND REHABILITATION OF
BATTERY BREAKING OPERATION

Attachment 2

SUMMARY SHEET OF ESTIMATED COSTS

Norris Bros., Quotation with exceptions 2/15/78	$103,165.00
Exceptions - estimated costs:	
Item 3, Grouting at 1st floor drain	850.00
Item 14, Separator parts, connecting duct and feeder, stainless steel	3,875.00
Item 15, Saw Line parts, stainless steel	1,400.00
Item 17, Crusher parts, stainless steel	3,500.00
Item 18, Screw conveyors drive and trough	1,125.00
Item 20, No additional costs indicated	-----
Items 42 & 43, Lipman Plumbing quotation	3,596.00
Item 51, Repair 35% of motors	1,190.00
Item 52, No additional costs indicated	-----
Item 53, Replace 35% of motor controls	2,800.00

The following items were not listed as work to be done and therefore were not quoted by Norris Bros.

A. Purchase 3 jacks for trailer leveling (1 on hand)	850.00
B. Battery roller conveyor (plastic rolls) for trailer unloading	1,200.00
C. Conveyor belt (tops) wipers	750.00
D. Rebuild three acid pumps, transfer service	1,500.00
E. Replacement ammonia line, tank to neutralizing area 1" xxs pipe, 5 ball valves, 2 solenoid valves	1,050.00
F. Fabrication of low-blade speed saw	18,000.00
SUBTOTAL	$144,851.00
5% Escalation	7,243.00
20% Contingency	28,970.00
TOTAL THIS REQUEST	$181,064.00

NL INDUSTRIES INC.
METAL DIVISION
CLEVELAND
BUILDING IMPROVEMENT

RUN DATE 07/17/79 FOR ENDING 6/30/79

DIVN 09 LOCA. 79 ASST STAT E

S-OPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	D M	T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
0 000	4531	97947023-00	1	22X30EXTENSION WHITE BLDGMD126	1/70	20-00	5	0	6,830.44	1,921.44	28.46	170.76
0 000	4531	97947024-00	1	696SQFT EXTENSION OFFICE MD87	1/70	20-00	5	0	20,083.83	9,539.82	83.68	502.08
0 000	4531	97947025-00	1	CONCRETE FLOOR SLABS WMB M19	1/70	20-00	5	0	1,700.00	807.49	7.08	42.49
0 000	4531	97947026-00	1	SEWER LINES CATCH BASINS M18	1/70	20-00	5	0	1,764.00	837.90	7.35	44.10
0 000	4531	97947030-00	1	FENCING WITH 8FT GATE B&OM-3	1/70	20-00	5	0	586.00	279.04	2.44	14.64
0 000	4531	97947031-00	1	INSTALLSTHEROMPANEWINDOWSM-10	1/70	20-00	5	0	1,298.50	616.88	5.41	32.46
0 000	4531	97947032-00	1	CONCRETE CURBS INSTALLED M-20	1/70	20-00	5	0	1,125.00	534.39	4.69	28.14
0 000	4531	97947033-00	1	ADDITIONS TO WHITEMTLBLDGMD155	1/71	20-00	5	0	6,719.67	2,855.84	28.00	168.00
0 000	4531	97947035-00	1	ENCLOSE NORTH END SMELTERMD290	1/73	20-00	5	0	14,625.00	4,775.64	60.94	365.64
0 000	4531	97947036-00	1	EXTENSION OF DTR BLDG MD287	1/73	20-00	5	0	6,200.00	2,014.99	25.83	154.99
0 000	4531	97947037-00	1	RELOCATE STEAM WATER LINE17316	1/73	20-00	5	0	20,653.82	8,538.76	86.06	516.36
				GL EXPEN ACCT TOTALS					163,555.22	83,956.63	553.40	3,320.65
				SUB-DEPT/PROD TOTALS					163,555.22	83,956.63	553.40	3,320.65
				DEPARTMENT TOTALS					163,555.22	83,956.63	553.40	3,320.65
0 000	4531	97947013-00	1	EXTENSION TO SAMPLINGBLDG	1/60	20-00	5	0	1,493.50	1,456.19	6.22	37.32
0 000	4531	97947034-00	1	SAMPLE TEST ROOM B&O BLDGM-3	1/73	20-00	5	0	1,950.00	633.75	8.12	48.75
				GL EXPEN ACCT TOTALS					3,443.50	2,089.94	14.34	86.07
				SUB-DEPT/PROD TOTALS					3,443.50	2,089.94	14.34	86.07
				DEPARTMENT TOTALS					3,443.50	2,089.94	14.34	86.07
0 000	4531	97947006-00	1	20X15X8 CONC STORAGE ROOMMD195	1/71	20-00	5	0	2,653.55	1,127.79	11.05	66.35
0 000	4531	97947021-00	1	MAINTENANCE BLDG IMPROVE 16413	1/69	20-00	5	0	692.85	363.73	2.88	17.33
0 000	4531	97947022-00	1	ADDITIONAL B&O BLDG 16413	1/69	20-00	5	0	5,036.60	2,644.22	20.98	125.92
0 000	4531	97947029-00	1	CONCRETE FLOOR B&O BLDG M-2	1/70	20-00	5	0	4,150.00	1,971.24	17.29	103.74
				GL EXPEN ACCT TOTALS					12,533.00	6,106.98	52.20	313.34
				SUB-DEPT/PROD TOTALS					12,533.00	6,106.98	52.20	313.34
				DEPARTMENT TOTALS					12,533.00	6,106.98	52.20	313.34
1 000	6120	97947007-00	1	TRUCK LOADING DOCK 11286	1/58	20-00	5	0	9,775.15	9,775.15		
				GL EXPEN ACCT TOTALS					9,775.15	9,775.15		
				SUB-DEPT/PROD TOTALS					9,775.15	9,775.15		
				DEPARTMENT TOTALS					9,775.15	9,775.15		
				ASSET STATUS TOTALS					245,712.19	129,897.50	853.92	5,124.04

PM302-01-0979

FIXED ASSET BOOK LEDGER

NL INDUSTRIES INC.
METAL DIVISION
CLEVELAND
BUILDING IMPROVEMENT

RUN DATE 07/17/79 FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT E

DEPT	S-DPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	D M	T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
120	000	4531	97947014-00	1	18X46 CANOPY BATTERY DEPTM	1/60	24-00	5	0	1,491.00	1,286.10	5.18	31.08
120	000	4531	97947020-00	1	BATTERY SAW BUILDING 16413	1/69	20-00	5	0	36,366.32	19,092.37	151.52	909.17
					GL EXPEN ACCT TOTALS					37,857.32	20,378.47	156.70	940.25
					SUB-DEPT/PROD TOTALS					37,857.32	20,378.47	156.70	940.25
					DEPARTMENT TOTALS					37,857.32	20,378.47	156.70	940.25
140	000	4531	97947027-00	1	REPLACE ROOF ON BLASTBLDGMD116	1/70	20-00	5	0	9,655.00	4,586.13	40.23	241.38
					GL EXPEN ACCT TOTALS					9,655.00	4,586.13	40.23	241.38
					SUB-DEPT/PROD TOTALS					9,655.00	4,586.13	40.23	241.38
					DEPARTMENT TOTALS					9,655.00	4,586.13	40.23	241.38
149	000	4531	97947002-00	1	RE-GUNITE REPAIR BAGHOUSEMD418	1/74	20-00	5	0	6,100.00	1,677.51	25.41	152.51
					GL EXPEN ACCT TOTALS					6,100.00	1,677.51	25.41	152.51
					SUB-DEPT/PROD TOTALS					6,100.00	1,677.51	25.41	152.51
					DEPARTMENT TOTALS					6,100.00	1,677.51	25.41	152.51
180	000	4531	97947028-00	1	REPLACE CONCRETE POTS L23MD114	1/70	20-00	5	0	2,793.00	1,326.69	11.64	69.84
					GL EXPEN ACCT TOTALS					2,793.00	1,326.69	11.64	69.84
					SUB-DEPT/PROD TOTALS					2,793.00	1,326.69	11.64	69.84
					DEPARTMENT TOTALS					2,793.00	1,326.69	11.64	69.84
400	000	4531	97947000-00	1	IMPROVE WELFARE FACILITY	1/74	20-00	5	0	17,987.00	4,953.08	74.94	449.68
400	000	4531	97947001-00	1	REZNOR MAKE-UP UNIT MD424	1/74	20-00	5	0	10,540.00	2,898.51	43.91	263.51
400	000	4531	97947003-00	1	AO SMITH BURKAY 300HEATERMD409	1/74	20-00	5	0	2,533.00	708.92	10.55	63.32
400	000	4531	97947004-00	1	OFFICE & WASHROOM EXPANS111256	1/58	20-00	5	0	18,059.90	18,059.90		
400	000	4531	97947005-00	1	OFFICE COOLING TOWER INSTM	1/61	20-00	5	0	555.33	513.73	2.31	13.88
400	000	4531	97947008-00	1	BATTERY PLATE STORAGE BINMD194	1/71	20-00	5	0	4,745.80	2,016.96	19.77	118.64
400	000	4531	97947009-00	1	WATER & SEWER LINES 11255	1/58	20-00	5	0	8,090.58	8,090.58		
400	000	4531	97947010-00	2	MERCURY FLOODLAMPS M-8	1/66	20-00	5	0	510.00	344.25	2.12	12.75
400	000	4531	97947011-00	1	TRANSFORMER HOUSE CONCBLK11023	1/58	20-00	5	0	2,255.44	2,255.44		
400	000	4531	97947012-00	1	CHAIN LINK FENCE & GATE M5 M7	1/67	20-00	5	0	2,873.80	1,796.12	11.97	71.84
400	000	4531	97947015-00	1	SEWER LINR & CATCH BASIN M	1/61	20-00	5	0	1,259.71	1,165.29	5.25	31.50
400	000	4531	97947016-00	1	RECAPITALZED ITEMS	1/64	5-00	5	0	2,323.25	2,323.25		
400	000	4531	97947017-00	1	REBUILDING 200FT"A"TRACK M-4	1/65	20-00	5	0	2,275.00	1,649.38	9.48	56.88
400	000	4531	97947018-00	1	WHITE MTL BLDG ALTERATION	1/68	20-00	5	0	5,600.00	3,219.99	23.33	139.99
400	000	4531	97947019-00	1	SCALE HOUSE BLDG REPLACE M-8	1/69	20-00	5	0	2,360.15	1,239.04	9.83	59.00

RUN DATE 07/17/79 NL INDUSTRIES INC. METAL DIVISION CLEVELAND BUILDINGS FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT D

DEPT	S-DPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	D M	T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
440	000	4531	97937013-00	1	LABORATORY BUILDING	1/44	40-00	5	0	2,530.62	2,283.87	5.27	31.62
440	000	4531	97937014-00	1	LAB EXPANSION	1/56	40-00	5	0	7,777.33	4,569.22	16.20	97.20
					GL EXPEN ACCT TOTALS					10,307.95	6,853.09	21.47	128.82
					SUB-DEPT/PROD TOTALS					10,307.95	6,853.09	21.47	128.82
					DEPARTMENT TOTALS					10,307.95	6,853.09	21.47	128.82
621	000	6120	97937012-00	1	SHIPPING & WAREHOUSE BLDG	1/42	25-00	5	0	193.00	193.00		
621	000	6120	97937015-00	1	MAINTENANCE BUILDING 6051	1/49	40-00	5	0	8,832.20	5,243.49	18.40	110.40
					GL EXPEN ACCT TOTALS					9,025.20	5,436.49	18.40	110.40
					SUB-DEPT/PROD TOTALS					9,025.20	5,436.49	18.40	110.40
					DEPARTMENT TOTALS					9,025.20	5,436.49	18.40	110.40
					ASSET STATUS TOTALS					327,644.90	224,146.21	617.19	3,703.21

RUN DATE 07/17/79 NL INDUSTRIES INC. METAL DIVISION CLEVELAND BUILDINGS FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT D

PT	S-DPT /PRO	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	D M	T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
20	000	4531	97937017-00	1	BATTERY DISMANTLING DEPT 11427	1/59	25-00	5	0	20,945.95	15,290.61	69.82	418.92
20	000	4531	97937018-00	1	ENCLOSE TRUCK DOCK & WARE17080	1/71	40-00	5	0	58,844.32	12,504.42	122.59	735.54
					GL EXPEN ACCT TOTALS					79,790.27	27,795.03	192.41	1,154.46
					SUB-DEPT/PROD TOTALS					79,790.27	27,795.03	192.41	1,154.46
					DEPARTMENT TOTALS					79,790.27	27,795.03	192.41	1,154.46
40	000	4531	97937005-00	1	BLAST BUILDINGS	1/38	40-00	5	0	15,615.79	15,615.79		
					GL EXPEN ACCT TOTALS					15,615.79	15,615.79		
					SUB-DEPT/PROD TOTALS					15,615.79	15,615.79		
					DEPARTMENT TOTALS					15,615.79	15,615.79		
43	000	4531	97937006-00	1	REVERB BUILDING	1/35	40-00	5	0	875.00	875.00		
					GL EXPEN ACCT TOTALS					875.00	875.00		
					SUB-DEPT/PROD TOTALS					875.00	875.00		
					DEPARTMENT TOTALS					875.00	875.00		
49	000	4531	97937007-00	1	BAGHOUSE BUILDING	1/50	25-00	5	0	32,882.24	32,882.24		
					GL EXPEN ACCT TOTALS					32,882.24	32,882.24		
					SUB-DEPT/PROD TOTALS					32,882.24	32,882.24		
					DEPARTMENT TOTALS					32,882.24	32,882.24		
80	000	4531	97937008-00	1	REFINING & CASTING BLDG	1/53	25-00	5	0	9,508.08	9,508.08		
					GL EXPEN ACCT TOTALS					9,508.08	9,508.08		
					SUB-DEPT/PROD TOTALS					9,508.08	9,508.08		
					DEPARTMENT TOTALS					9,508.08	9,508.08		
00	000	4531	97937000-00	1	ADMINISTRATIVEOFFICE BLDG	1/55	40-00	5	0	41,179.54	29,804.18	85.79	514.74
00	000	4531	97937001-00	1	GENERAL BUILDINGS	1/54	25-00	5	0	1,409.20	1,409.20		
00	000	4531	97937002-00	1	PLANT CONTROL OFFICE 9348	1/55	40-00	5	0	6,995.11	4,284.46	14.57	87.43
00	000	4531	97937003-00	1	ROUNDHOUSE PORTION 13106	1/63	15-00	5	0	18,647.88	18,647.88		
00	000	4531	97937004-00	1	51/2 BAYS OF ROUNDHOUSE 17316	1/73	20-00	5	0	21,230.00	6,908.76	88.46	530.76
00	000	4531	97937009-00	1	WHITE METAL BUILDING	1/45	25-00	5	0	4,191.12	4,191.12		
00	000	4531	97937010-00	1	PTR BUILDING	1/57	25-00	5	0	3,350.97	3,350.97		
00	000	4531	97937011-00	1	NO 2 RAILROAD SIDING	1/57	25-00	5	0	22,937.02	18,462.47	76.45	458.75
00	000	4531	97937016-00	1	WELFARE BUILDING	1/49	40-00	5	0	47,123.03	35,931.43	98.17	589.03
00	000	4531	97937019-00	1	PORTA-OFFICE MIXED METAL	1/71	10-00	5	0	2,576.50	2,190.02	21.47	128.82
					GL EXPEN ACCT TOTALS					169,640.37	125,180.49	384.91	2,309.53
					SUB-DEPT/PROD TOTALS					169,640.37	125,180.49	384.91	2,309.53
					DEPARTMENT TOTALS					169,640.37	125,180.49	384.91	2,309.53

01-0979

FIXED ASSET BOOK LEDGER

NL INDUSTRIES INC.
METAL DIVISION
CLEVELAND
LAND IMPROVEMENTS

RUN DATE 07/17/79 FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT B

-DPT PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION		DEPR BEGIN	EST. LIFE	D M	T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
000	4531	97957900	1	5800 SQ FT PAVING300FENCE	14184	1/64	20-00	5	0	6,349.97	4,941.40	26.46	158.76
000	4531	97957901	1	6400 SQ FT REINF CONCRETE	16479	1/68	20-00	5	0	5,997.87	3,448.80	24.99	149.94
000	4531	97957902	1	1681 SQ FT CONCRETE LOT	M-4	1/69	20-00	5	0	1,600.00	840.01	6.66	40.01
000	4531	97957903	1	8 INCH CONCRETE NO OF SAW	M-7	1/69	20-00	5	0	2,500.00	1,312.51	10.41	62.51
000	4531	97957904	1	1000 SQ FT 6INCH CONCRETE	M-10	1/69	20-00	5	0	1,000.00	525.01	4.16	25.01
000	4531	97957905	1	500 SQ FT CONCRETE ATPOTS	M-13	1/70	20-00	5	0	1,029.00	488.79	4.29	25.74
000	4531	97957906	1	NEW BINS SOUTH YARD	M-15	1/70	20-00	5	0	953.03	452.70	3.97	23.82
000	4531	97957907	1	500 SQ FT ASPHALT	M-9	1/70	20-00	5	0	500.00	237.49	2.08	12.49
000	4531	97957908	1	CONCRETE APRON FRONTDRIVE	M-7	1/70	20-00	5	0	4,550.00	2,161.26	18.96	113.76
000	4531	97957909	1	DROSS STORAGE BINS	M-8	1/70	20-00	5	0	1,179.68	560.39	4.91	29.49
000	4531	97957910	1	FENCING FOR PARKING LOT	M-3	1/70	20-00	5	0	530.00	251.76	2.21	13.26
000	4531	97957911	1	73'X50' CONCRETE SW YARD	M-5	1/70	20-00	5	0	3,415.00	1,451.38	14.23	85.38
000	4531	97957912	1	CONCRETE MIDD PARKING LOT		1/71	20-00	5	0	4,180.00	1,776.51	17.41	104.51
000	4531	97957913	1	PAVING DRIVE AT DOCK	17080	1/71	20-00	5	0	645.00	274.14	2.69	16.14
000	4531	97957914	1	3796 SQ FT CONCRETE		1/71	20-00	5	0	4,133.00	1,756.52	17.22	103.32
000	4531	97957915	1	3590 SQ FT CONCRETE	M-7	1/72	20-00	5	0	3,917.50	1,466.95	16.32	97.93
				GL EXPEN ACCT TOTALS						42,480.05	21,945.62	176.97	1,062.07
				SUB-DEPT/PROD TOTALS						42,480.05	21,945.62	176.97	1,062.07
				DEPARTMENT TOTALS						42,480.05	21,945.62	176.97	1,062.07
				ASSET STATUS TOTALS						42,480.05	21,945.62	176.97	1,062.07

NL INDUSTRIES INC.
METAL DIVISION
CLEVELAND
LAND

RUN DATE 07/17/79 FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT A

DEPT	S-DPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	D M	T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
400	000	5143	97957000-00	1	2734SQFT PORTICNS PARCELS17255	0/00*	0-00	0	0	3,356.87			
400	000	5143	97957001-00		CITY PROPERTY 15437	0/00*	0-00	0	0	30,000.00			
400	000	5143	97957002-00		RECORDS IN NEW YORK OFFICE	0/00*	0-00	0	0	90,623.05			
					GL EXPEN ACCT TOTALS					123,979.92			
					SUB-DEPT/PROD TOTALS					123,979.92			
					DEPARTMENT TOTALS					123,979.92			
					ASSET STATUS TOTALS					123,979.92			

RUN DATE 07/17/79 NL INDUSTRIES INC. METAL DIVISION CLEVELAND FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT I FURNITURE & FIXTURES

S-DPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	D M	I T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
000	4531	97907010-00	1	WET LAB	1/65	10-00	5	0	1,275.00	1,275.00		
000	4531	97907015-00	1	3 GAL WATER STILL W LAB	1/66	10-00	5	0	316.23	316.23		
000	4531	97907016-00	1	LAB DRYING OVEN REL EQUIP	1/69	10-00	5	0	1,121.73	1,121.73		
000	4531	97907018-00	1	CENTRIFUGE NC 9774-10	1/67	10-00	5	0	175.00	175.00		
000	4531	97907019-00	1	AA SPECTRO BURNER LAMP	1/67	10-00	5	0	6,044.62	6,044.62		
000	4531	97907020-00	1	BUMER NEBULIZER ASSYEQUIP	1/71	10-00	5	0	1,710.17	1,453.63	14.25	85.50
000	4531	97907021-00	1	AMPLIFIER S/N 473	1/71	10-00	5	0	1,321.40	1,123.18	11.01	66.06
000	4531	97907022-00	1	TECHTRON SUR CU AG LAMPS	1/72	10-00	5	0	1,117.95	838.38	9.31	55.91
				GL EXPEN ACCT TOTALS					13,082.10	12,347.77	34.57	207.47
				SUB-DEPT/PROD TOTALS					13,082.10	12,347.77	34.57	207.47
				DEPARTMENT TOTALS					13,082.10	12,347.77	34.57	207.47
000	4531	97907005-00	1	WATER COOLER	1/70	10-00	5	0	169.40	160.92	1.41	8.46
				GL EXPEN ACCT TOTALS					169.40	160.92	1.41	8.46
				SUB-DEPT/PROD TOTALS					169.40	160.92	1.41	8.46
				DEPARTMENT TOTALS					169.40	160.92	1.41	8.46
	7600	97907033-00	1	POSTURE DESK CHAIR GREEN	1/66	10-00	5	0	252.00	252.00		
				GL EXPEN ACCT TOTALS					252.00	252.00		
				SUB-DEPT/PROD TOTALS					252.00	252.00		
				DEPARTMENT TOTALS					252.00	252.00		
				ASSET STATUS TOTALS					56,933.28	52,282.52	172.07	1,033.17
				LOCATION TOTALS					1,949,763.83	958,170.02	6,916.91	41,027.86

NL INDUSTRIES INC.
METAL DIVISION
CLEVELAND
FURNITURE & FIXTURES

RUN DATE 07/17/79 FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT I

PT	S-DPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	DMC	ITC	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
00	000	4531	97907041-00	1	SETTEE ARMCHAIR COF TABLE	1/70	10-00	5	0	281.59	267.52	2.34	14.04
00	000	4531	97907042-00	1	UPH CHAIR GREEN FABRIC	1/70	10-00	5	0	110.40	104.88	.92	5.52
00	000	4531	97907043-00	2	UPH WALNUT ARMCHAIRS	1/70	10-00	5	0	224.00	212.81	1.86	11.21
00	000	4531	97907044-00	1	WALNUT DESK CREDEZNA FILE	1/70	10-00	5	0	654.10	621.39	5.45	32.70
00	000	4531	97907045-00	1	TELEVOICE WRITER TRANSCRI	1/71	10-00	5	0	675.00	573.75	5.62	33.75
00	000	4531	97907046-00	1	ELECTRONIC CALCULATOR	1/71	10-00	5	0	541.45	460.27	4.51	27.06
00	000	4531	97907047-00	1	SHARP ELECTRON CALCULATOR	1/71	10-00	5	0	408.83	347.52	3.40	20.45
00	000	4531	97907048-00	1	SECRETARIAL DESK CREDENZA	1/71	10-00	5	0	750.52	637.94	6.25	37.52
00	000	4531	97907049-00	1	SECRETARIAL DESK AND TOP	1/71	10-00	5	0	203.30	172.80	1.69	10.16
00	000	4531	97907050-00	1	AIR CONDITIONER 11000 BTU	1/72	10-00	5	0	219.00	164.25	1.82	10.95
00	000	4531	97907051-00	1	GRAY 30X 60 DESK	1/72	10-00	5	0	125.00	93.74	1.04	6.24
00	000	4531	97907052-00	1	ELECTRONIC CALCULATOR	1/72	10-00	5	0	495.00	371.25	4.12	24.75
00	000	4531	97907053-00	3	METAL STAND EXECUTI DESKS	1/72	10-00	5	0	490.05	367.59	4.08	24.50
00	000	4531	97907054-00	1	ELECTRONIC CALCULATOR	1/72	10-00	5	0	495.00	371.25	4.12	24.75
00	000	4531	97907055-00	1	AIR CONDITIONER 11000 BTU	1/72	10-00	5	0	199.00	149.26	1.66	9.96
00	000	4531	97907056-00	1	ROYAL ELECTRIC TYPEWRITER	1/72	10-00	5	0	368.00	276.01	3.06	18.41
00	000	4531	97907057-00	1	LEGAL & LETTER FILE CHAIR	1/72	10-00	5	0	272.45	204.22	2.27	13.62
00	000	4531	97907058-00	1	DICTATING TRANSCRIBINGMAC	1/72	10-00	5	0	800.00	600.01	6.66	40.01
00	000	4531	97907059-00	1	VICTOR ELECTRONIC CALCULA	1/72	10-00	5	0	355.50	266.61	2.96	17.76
00	000	4531	97907060-00	1	DESK TRANS FROM CINNCINAT	1/65	10-00	5	0	265.00	265.00		
00	000	4531	97907061-00	1	CREDENZA TRANS FROM CINNC	1/65	10-00	5	0	293.50	293.50		
00	000	4531	97907062-00	1	CHAIR TRANS FROM CINNCINN	1/65	10-00	5	0	150.00	150.00		
00	000	4531	97907063-00	1	TYPEWRITER TRANS FROM CIN	1/72	10-00	5	0	520.00	389.99	4.33	25.99
00	000	4531	97907064-00	1	ROYAL ELECTRIC TYPEWRITER	1/73	10-00	5	0	429.50	286.78	3.58	21.48
00	000	4531	97907065-00	1	PITTSBURG LAB EQUIPMENT	1/68	10-00	5	0	8,518.64	8,518.64		
00	000	4531	97907066-00	1	AIR CONDITIONER 15000 BTU	1/73	5-00	5	0	239.00	239.00		
00	000	4531	97907067-00	1	ELECTRONIC CALCULATOR	1/74	10-00	5	0	103.98	60.79	.86	5.21
00	000	4531	97907068-00	1	IBM SELECTRIC TYPEWRITER	1/75	10-00	5	0	405.00	182.25	3.37	20.25
00	000	4531	97907069-00	1	IBM SELECTRIC TYPEWRITER	1/75	10-00	5	0	464.00	208.81	3.86	23.21
00	000	4531	97907070-00	1	OFFICE FURNITURE FROM PIT	1/73	10-00	5	0	1,990.09	1,769.63	16.58	99.50
00	000	4531	97907071-00	1	FILM PROJECTOR & LA REEL	1/75	10-00	5	0	741.00	333.45	6.17	37.05
00	000	4531	97907073-00		DESKS & CHAIRS	1/66	10-00	5	0	1,088.39	489.78	9.07	54.42
					GL EXPEN ACCT TOTALS					42,865.18	39,000.58	134.65	808.57
					SUB-DEPT/PROD TOTALS					42,865.18	39,000.58	134.65	808.57
					DEPARTMENT TOTALS					42,865.18	39,000.58	134.65	808.57

FIXED ASSET BOOK LEDGER

NL INDUSTRIES INC.
METAL DIVISION
CLEVELAND
FURNITURE & FIXTURES

RUN DATE 07/17/79 FOR ENDING 6/30/79

'N 09 LOCA 79 ASST STAT I

TEXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	D M	I T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
4531	97907006-00		VAN DORN INFRA-RED HEATER	1/72	10-00	5	0	173.39	130.04	1.44	8.67
4531	97907072-00	1	CRUSHER	1/58	10-00	5	0	391.21	391.21		
			GL EXPEN ACCT TOTALS					564.60	521.25	1.44	8.67
			SUB-DEPT/PROD TOTALS					564.60	521.25	1.44	8.67
			DEPARTMENT TOTALS					564.60	521.25	1.44	8.67
4531	97907000-00	4	INFRA RED HEATERS	1/68	10-00	5	0	1,059.61	1,059.61		
4531	97907001-00	1	SHOWER-LOCKER ROOM 2ND FL	1/65	10-00	5	0	4,693.29	4,693.29		
4531	97907002-00	1	WHITE REFRIGERATOR 2 DOOR	1/68	10-00	5	0	199.95	199.95		
4531	97907003-00	1	WATER COOLER FOOT PEDAL	1/69	10-00	5	0	165.00	165.00		
4531	97907004-00	1	PORTABLE AUTOMATIC WASHER	1/69	10-00	5	0	152.95	152.95		
4531	97907007-00	1	DRAFTING MACHINE 30 BOARD	1/67	10-00	5	0	138.00	138.00		
4531	97907008-00	2	60X30 GRAY STEEL DESKS	1/67	10-00	5	0	328.50	328.50		
4531	97907009-00	1	AIR CONDITIONER 14000 BTU	1/71	10-00	5	0	235.08	199.84	1.96	11.76
4531	97907011-00	1	CONTENTS OF WELFARE BLDG	1/65	10-00	5	0	156.82	156.82		
4531	97907012-00	1	AIR CONDITIONER 15000 BTU	1/72	10-00	5	0	239.00	179.24	1.99	11.94
4531	97907013-00	1	AMANA RR MICROWAVE OVEN	1/73	10-00	5	0	344.00	223.61	2.86	17.21
4531	97907014-00	1	QUAKER HEATER SHIPPING RM	1/67	10-00	5	0	152.15	152.15		
4531	97907017-00	1	AIR CONDITIONER 11000 BTU	1/72	10-00	5	0	199.00	149.26	1.66	9.96
4531	97907023-00	1	AIR CONDITIONER 11000 BTU	1/67	10-00	5	0	204.95	204.95		
4531	97907024-00	1	AIR CONDITIONER 6000 BTU	1/72	10-00	5	0	148.00	110.99	1.23	7.39
4531	97907025-00	1	AIR CONDITIONER 11000 BTU	1/72	10-00	5	0	199.00	149.26	1.66	9.96
4531	97907026-00	1	WATER COOLER	1/71	10-00	5	0	172.34	146.46	1.43	8.62
4531	97907027-00	1	USED ART TYPEWRITER DESK	1/65	10-00	5	0	119.95	119.95		
4531	97907028-00	1	GREY TABLE TOP DESK FILE	1/65	10-00	5	0	98.55	98.55		
4531	97907029-00	1	GRAY 36X60 PEDESTAL DESK	1/66	10-00	5	0	228.90	228.90		
4531	97907030-00	2	AIR CONDITIONERS 11000BTU	1/66	10-00	5	0	378.00	378.00		
4531	97907031-00	1	SERIES F ACCOUNTING MACH	1/66	10-00	5	0	7,920.00	7,920.00		
4531	97907032-00	1	GRAYTON PORTABLE TRAY	1/66	10-00	5	0	110.25	110.25		
4531	97907034-00	2	CONTROL UNITS FOR F-1503	1/66	10-00	5	0	400.00	400.00		
4531	97907035-00	2	DAWN GREY 2 DRAWER FILES	1/67	10-00	5	0	117.80	117.80		
4531	97907036-00	1	5 DRAWER LEGAL FILE	1/69	10-00	5	0	125.80	125.80		
4531	97907037-00	1	ELECTRIC TYPEWRITER	1/69	10-00	5	0	477.00	477.00		
4531	97907038-00	1	PRINTING CALCULATOR	1/70	10-00	5	0	625.00	593.76	5.21	31.26
4531	97907039-00	1	WALNUT DESK AND CREDENZA	1/70	10-00	5	0	460.80	437.76	3.84	23.04
4531	97907040-00	2	UPHOLST GOLD GUEST CHAIRS	1/70	10-00	5	0	139.20	132.24	1.16	6.96

NL INDUSTRIES INC.
METAL DIVISION
CLEVELAND
TRANSPORTATION EQP

RUN DATE 07/17/79 FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT H

PT	S-OPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION		DEPR BEGIN	EST. LIFE	D M	T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
00	000	4531	97927001-00	1	YALE LIFT TRUCK #3000	33	7/68	8-00	5	0	5,664.00	5,664.00		
00	000	4531	97927002-00	1	HOUGH PAYLOADER	37	8/70	8-00	5	0	10,917.00	10,917.00		
00	000	4531	97927003-00	1	FORK LIFT TRUCK AR8467	38	12/70	8-00	5	0	8,150.00	8,150.00		
00	000	4531	97927004-00	1	FORK LIFT TRUCK AR21487	39	10/71	8-00	5	0	7,476.00	7,266.00	70.00	420.00
00	000	4531	97927005-01		H25B PAYLOADER TR#55	MD746	9/77	6-00	5	6	18,156.70	5,547.90	252.17	1,513.07
00	000	4531	97927007-00	1	LIFT TRUCK 2500 CAPACITY	PITTS	6/72	8-00	5	0	6,120.00	6,120.00		
00	000	4531	97927008-01		H25B PAYLOADER TR#56	MD766	9/77	6-00	5	6	18,080.80	5,524.68	251.12	1,506.72
00	000	4531	97927009-00		WALDON FRONTEND LOADER	50	9/74	8-00	5	0	9,537.00	5,793.58	99.34	596.06
00	000	4531	97927010-00	1	HOUGH PAYLOADER AR875544		2/74	8-00	5	0	18,951.90	12,867.36	197.41	1,184.50
00	000	4531	97927011-00	1	HOUGH PAYLOADER	45	11/73	8-00	5	0	1.00	.58	.01	.06
00	000	4531	97927012-00	1	PEWER SWEEPER	93	2/74	8-00	5	0	9,662.00	6,596.88	100.64	603.88
00	000	4531	97927014-00	1	195BTRACTOR DUMP TRAILER		6/70	8-00	5	0	3,696.00	3,696.00		
00	000	4531	97927015-00		WALDON LOADER PAYLOADER	MD645	1/77	8-00	5	4	26,191.36	8,184.81	272.82	1,636.97
					GL EXPEN ACCT TOTALS						142,603.76	86,328.79	1,243.51	7,461.26
					SUB-DEPT/PROD TOTALS						142,603.76	86,328.79	1,243.51	7,461.26
					DEPARTMENT TOTALS						142,603.76	86,328.79	1,243.51	7,461.26
					ASSET STATUS TOTALS						142,603.76	86,328.79	1,243.51	7,461.26

NL INDUSTRIES INC.
METAL DIVISION
CLEVELAND
MACHINERY & EQUIP

RUN DATE 07/17/79 FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT G

EPT	S-DPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION		DEPR BEGIN	EST. LIFE	D M	I T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
440	000	4531	97917066-00	1	CRUSHER FOR SAMPLES	M	1/54	20-00	5	0	490.40	490.40		
440	000	4531	97917083-00		ANALYTICAL LAB UPDATE	MD803	1/78	20-00	5	7	19,792.03	1,484.41	82.46	494.81
					GL EXPEN ACCT TOTALS						20,282.43	1,974.81	82.46	494.81
					SUB-DEPT/PROD TOTALS						20,282.43	1,974.81	82.46	494.81
					DEPARTMENT TOTALS						20,282.43	1,974.81	82.46	494.81
450	000	4531	97917008-00	1	SEWER CLEANING MACHINE		1/65	20-00	5	0	560.50	560.50		
450	000	4531	97917061-00	1	ONE TON ELECTRIC HOIST	TR165M7	1/66	20-00	5	0	468.76	419.56	1.95	11.71
450	000	4531	97917068-00	1	PORTA-START	M-9	1/67	20-00	5	0	495.00	398.46	2.06	12.36
450	000	4531	97917069-00	1	ARC WELDER WITH METERS	M-3	1/69	20-00	5	0	640.00	400.01	2.66	16.01
450	000	4531	97917070-00	1	CURTISS AIR COMPRESSOR	11427	1/59	20-00	5	0	781.08	781.08		
					GL EXPEN ACCT TOTALS						2,945.34	2,559.61	6.67	40.08
					SUB-DEPT/PROD TOTALS						2,945.34	2,559.61	6.67	40.08
					DEPARTMENT TOTALS						2,945.34	2,559.61	6.67	40.08
621	000	6120	97917072-00	1	SCALE	17080	1/71	20-00	5	0	5,254.26	2,233.02	21.89	131.34
621	000	6120	97917073-00	4	DOCKBOARDS AND BUMPERS	17080	1/71	20-00	5	0	4,346.15	1,847.14	18.11	108.66
621	000	6120	97917074-00	1	ELECTRICAL WORK TRUCKDOCK	17080	1/71	20-00	5	0	2,228.49	953.11	9.28	55.71
					GL EXPEN ACCT TOTALS						11,828.90	5,033.27	49.28	295.71
					SUB-DEPT/PROD TOTALS						11,828.90	5,033.27	49.28	295.71
					DEPARTMENT TOTALS						11,828.90	5,033.27	49.28	295.71
					ASSET STATUS TOTALS						1,010,409.73	443,569.38	3,853.25	22,644.11

NL INDUSTRIES INC.
METAL DIVISION
CLEVELAND
MACHINERY & EQUIP

RUN DATE 07/17/79 FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT G

S-DPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION		DEPR BEGIN	EST. LIFE	O M	T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
000	4531	97917016-00	1	SANITARY BAGHOUSE	16480	1/68	20-00	5	0	33,130.04	18,034.30	138.04	828.24
000	4531	97917018-00	1	SANITAR AIR POLLUTION EQU	16667	1/69	20-00	5	0	91,693.00	57,307.94	382.05	2,292.32
000	4531	97917046-00	1	NORBLO 2 CELL AN BAGHOUSE		1/70	20-00	5	0	6,074.00	4,403.46	25.31	151.86
000	4531	97917078-00		SANITARY FAN IMPELLOR	MD688	1/77	20-00	5	4	3,504.19	438.02	14.60	87.60
				GL EXPEN ACCT TOTALS						134,401.23	80,183.72	560.00	3,360.02
				SUB-DEPT/PROD TOTALS						134,401.23	80,183.72	560.00	3,360.02
				DEPARTMENT TOTALS						134,401.23	80,183.72	560.00	3,360.02
000	4531	97917000-00	1	INLET OUTLET FANBOX	MD504	1/75	20-00	5	0	11,218.00	2,524.04	46.74	280.44
000	4531	97917038-00	1	BAGHOUSE 1		1/38	20-00	5	0	4,205.77	4,205.77		
000	4531	97917039-00	1	BAGHOUSE 2		1/41	20-00	5	0	3,452.42	3,452.42		
000	4531	97917040-00	1	BAGHOUSE 4		1/49	20-00	5	0	6,290.47	6,290.47		
000	4531	97917042-00	1	REPLACE CROSS FLUE	15290	1/66	20-00	5	0	7,815.72	6,995.09	32.56	195.40
000	4531	97917045-00	1	INSTALL LARGE FANS	17449	1/73	20-00	5	0	37,746.32	12,273.27	157.27	943.67
				GL EXPEN ACCT TOTALS						70,728.70	35,741.06	236.57	1,419.51
				SUB-DEPT/PROD TOTALS						70,728.70	35,741.06	236.57	1,419.51
				DEPARTMENT TOTALS						70,728.70	35,741.06	236.57	1,419.51
000	4531	97917001-00	3	70# CASTING TABLES STYL8	OMD433	1/75	20-00	5	0	9,117.63	2,051.46	37.99	227.94
000	4531	97917002-00	3	CASTING TABLES		1/66	20-00	5	0	5,809.71	3,747.33	24.21	145.26
000	4531	97917005-00	2	CASTING TABLES 8CAVITY		1/71	20-00	5	0	4,048.53	2,295.55	16.87	101.22
000	4531	97917006-00	1	MIXER 60 TON POT STARTER		1/71	20-00	5	0	1,685.39	1,087.08	7.02	42.12
000	4531	97917009-00	1	BARBER COLEMAN RECORDER		1/67	20-00	5	0	710.75	430.02	2.96	17.76
000	4531	97917011-00	1	POT MIXING HOOD	MD419	1/74	20-00	5	0	4,059.99	1,135.50	16.91	101.51
000	4531	97917014-00	1	DUAL BURNER SYSTEM	17402	1/74	20-00	5	0	24,203.43	6,659.21	100.85	605.10
000	4531	97917020-00	1	TROLLEY HOIST POT SPTR		1/50	20-00	5	0	991.37	991.37		
000	4531	97917036-00	1	RECORDING CONTROLLER	M-1	1/66	20-00	5	0	346.50	346.50		
000	4531	97917041-00	1	CIRCULAR CHART RECORDING	M	1/61	20-00	5	0	811.46	811.46		
000	4531	97917043-00	1	BAG COLLECTOR	M-3	1/67	20-00	5	0	675.16	543.49	2.81	16.87
000	4531	97917048-00	1	ADDITIONAL KETTLE REFININ	8101	1/53	20-00	5	0	9,076.58	9,076.58		
000	4531	97917049-00	1	POT 12 SETTING 60-TON	M	1/57	20-00	5	0	1,401.08	1,401.08		
000	4531	97917050-00	1	TROLLEY EXTENSION STACK	M	1/62	20-00	5	0	1,307.85	1,307.85		
000	4531	97917051-00	1	POT SETTING 13 60 TON	M	1/62	20-00	5	0	1,465.13	1,465.13		
000	4531	97917052-00	1	POT SETTING 13 60 TON	M-11	1/64	15-00	5	0	1,415.03	1,415.03		
000	4531	97917053-00	1	POT DROSS SKIMMER FABRIC	A165M2	1/65	15-00	5	0	1,142.16	1,142.16		
000	4531	97917054-00	1	WHEELCO INDICATOR CONTROL	165M8	1/67	20-00	5	0	298.89	240.57	1.24	7.47

NL INDUSTRIES

INTERNAL CORRESPONDENCE

SUBJECT	Licenses, Permits, Leases	DATE	8/20/79
TO	Wayne Rutkay	COMPANY UNIT	New York
FROM	Kathy Zenkert	COMPANY UNIT	Cleveland

Attached copies listed as follows:

Certificate of operation - boiler
Permit to Operate Fulton gas/no 2 oil fired boiler
Junk Dealer license
License to distribute dangerous drugs
Ohio EPA - Conveyor, crusher, separator
Ohio EPA - Mixers and kettles, burner pots 5,6,10,12,13,14,15 & 16.
Ohio EPA - Burner Pots 1,2,3,4 Burner modification to burn gas and No. 2 Fuel oil
Ohio EPA - Lead Smelting Blast Furnace - Two horizontal saws, battery saws
Title for 1966 Mack Tractor
Title for 1956 Steco Semi Trailer
Registrations for same

Leases

5 Rental Supplements from Clark Rental System for 6 pieces of equipment. No 157, 158, 155, 177F and 184F
Xerox Service Agreement
Buckeye Garment Rental Co. - Uniforms
Means Co. - Towels
Cory Coffee Services
CPP Security Services

I cannot find contracts for the following and I assume they are somewhere in Hightstown:

ADT Contract
Ohio Bell
Friden - Postage Machine

Kathy

DEPARTMENT OF INDUSTRIAL RELATIONS
Division of Boiler Inspection
2323 W. Fifth Ave. — P. O. Box 825
Columbus, Ohio 43216

R 155235
FEE PAID

CERTIFICATE OF OPERATION

Boiler No. 131600

Type CIS Size 24" x 34" Nat'l. Bd. No. Maximum Pressure 15stm PSI

Location of Boiler Same Date Issued APR 11 1979 Expires 1-30-80

Owner and/or User

N C Industries, Incorporated
2850 West 3rd Street
CLEVELAND OH 44113

Ext.
Insp. Date 1-30-79 By Factory Mutual in

Inspector J. Spiker

This Certificate is effective until the expiration date subject to the provisions of Sections 4104.01 to 4104.99, inclusive of the Revised Code of Ohio.

Rev.

POST UNDER GLASS IN BOILER OR ENGINE ROOM

PERMIT TO OPERATE

City of Cleveland
Division of Air Pollution Control
2735 Broadway Ave.
Cleveland, Ohio 44115

Permit No. O - 1123
Issuance Date May 16, 1979
Termination Date May 16, 1982

Control No. 2163
Fee $ N/A

Permission is hereby granted for the operation of a Fulton gas/no. 2 oil fired standby boiler, model # 20F, rated at 690,000 BTU/HR input and used for process steam.

Special Terms and Conditions

at N. L. Industries, Inc. Address 2850 West 3rd Street, Cleveland, Ohio 44113
Applicant Same Address Same
Att'n: Mr. Clatz

This permit does not authorize emissions of air contaminants in excess of City, State and Federal air pollution laws and regulations, nor does it exempt the holder from complying with the requirements of other Departments of the City of Cleveland, as well as State and Federal Agencies.
The Commissioner, or his authorized representative(s) may enter your premises at any reasonable time, or when a source is being operated or when a violation has occurred or may occur, for the purpose of making inspections, conducting tests and examining records or reports pertaining to the above described source of environmental pollutants.
The Commissioner may require this permit to be renewed at an earlier date, as specified in Section 259.06 of the Air Pollution Code of the City of Cleveland.
Breakdown of this equipment shall be reported to this Division in accordance with the procedures outlined in Section 279.01 of said Code.
This permit may be revoked as provided in Section 259.07 of said Code.

Gary A. Nied
COMMISSIONER

APPLICANT COPY

THIS LICENSE MUST BE DISPLAYED

FEE

$5.00

City of Cleveland

Division of

Assessments and Licenses

№ 20

WHOLESALE

JUNK DEALER

To Operate as a Wholesale Junk Dealer in Accordance with and subject to the Conditions, Restrictions and Limitations of the Ordinances of the City of Cleveland and subject to Suspension or Revocation for Violation.

EXPIRES MAR 30 1979

License is Hereby Granted To: N. L. Industries Inc

Located at 2850 W. 3rd St.

CITY OF CLEVELAND, O. DEPARTMENT OF FINANCE

LOUIS J. CIVITTOLO
Commissioner of Assessments and Licenses

Issued 5/30/1978

By

NOT TRANSFERABLE

OHIO STATE BOARD OF PHARMACY

180 EAST BROAD ST SUITE 1126
COLUMBUS, OHIO 43215

SIGN, POST AND DISPLAY

Before change of ownership, control address or location, notify secretary of the Ohio Board of Pharmacy immediately.

SIGNED _____
SIGNATURE OF RESPONSIBLE PHARMACIST OR PRACTITIONER

TERMINAL DISTR OF DANGEROUS DRUGS

Be it known that

N L INDUSTRIES
ROBERT M. WOLDMAN, MD.D
2850 W 3RD ST
CLEVELAND OH 44113

02-02-4260
IDENTIFICATION NUMBER

12/31/78
Expiration Date

has given satisfactory evidence that all statutory requirements as required by the Revised Code have been met. (Wholesale—R.C. 4729.52 and 4729.53. Terminal—R.C. 4729.54 and 4729.55). In witness whereof this certificate is issued under seal.

License Number 001 438

Ohio State Board of Pharmacy

State of Ohio Environmental Protection Agency, Box 1049, 361 East Broad Street, Columbus, Ohio 43216 (614) 466-8565

JAN 13 1978

RECEIVED JAN 16 1978 N. L. INDUSTRIES

1318000222 P004

N.L. INDUSTRIES, INC.
R.C. GLATZ
2850 WEST 3RD
CLEVELAND, OHIO OHIO 44113

OhioEPA

James A. Rhodes
Governor

Ned E. Williams, P.E.
Director

Dear Sir:

This letter is to notify you that the application(s) you had made for permit(s) to operate the air contaminant source(s) as described on the attached notice(s) have been reviewed by the Ohio EPA and placed on registration status by the Director.

Under current Ohio Environmental Protection Agency policies and regulations, operation of these sources does not require a permit to operate. Consequentl the Ohio EPA will be taking no further action on the permit applications for these source(s) at this time.

This action does not affect your legal obligation to comply will all applicable Ohio EPA regulations, including emission regulations. Additionally, this action in no way precludes the Director's option of requiring a permit for these source(s) at some future date.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency and the Environmental Law Division of the Office of the Attorney General within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address:

Environmental Board of Review
395 East Broad St.
Columbus, Ohio 43215

Very truly yours,

Thomas E. Crepeau

Thomas E. Crepeau, Chief
Div. of Air Permits & Compliance Monitoring

AP-PS-240
6/16/77

100% Recycled Paper

NOTICE OF REGISTRATION

TO:
N.L. INDUSTRIES, INC.
2850 WEST 3RD
CLEVELAND OHIO 44113

FOR:

APPLICATION NO	1318000222 P004
EQUIPMENT DESCRIPTION	CONVEYOR, CRUSHER, SEPARATOR
COMPANY ID	TOP BENEFACTOR
ISSUE DATE	01/13/78
EFFECTIVE DATE	01/13/78

(SEE ENCLOSED LETTER FOR EXPLANATION)

Ned E. Williams

NED E. WILLIAMS, P.E.
DIRECTOR

State of Ohio Environmental Protection Agency, Box 1049, 361 East Broad Street, Columbus, Ohio 43216 (614) 466-8565

JAN 13 1978

RECEIVED JAN 16 1978

CERTIFIED MAIL

1318000222 P006

N.L. INDUSTRIES, INC.
R.C. GLATZ
2850 WEST 3RD
CLEVELAND, OHIO OHIO 44113

OhioEPA

James A. Rhodes
Governor

Ned E. Williams, P.E.
Director

Dear Sir:

Enclosed are Permit(s) to Operate which allow you to operate the described air contaminant source(s) in the manner indicated in the permit(s). Because these permit(s) contain several conditions and restrictions, I urge you to read them carefully.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency and the Environmental Law Division of the Office of the Attorney General within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address:

Environmental Board of Review
395 East Broad St.
Columbus, Ohio 43215

If you have any questions, please contact the air pollution control agency to which you submitted your application. A list of these agencies is enclosed for your convenience.

Very truly yours,

Thomas E. Crepeau

Thomas E. Crepeau, Chief
Div. of Air Permits & Compliance Monitoring

100% Recycled Paper

AP-PS-205
06/16/77

State of Ohio Environmental Protection Agency
James A. Rhodes, Governor
Ned E. Williams, Director

02

Permit to Operate an Air Contaminant Source
Terms and Conditions

Date of Issuance 01/13/78 Application Number 1318000222P006

Effective Date 01/13/78 Permit Fee $130

This document constitutes issuance to: N.L. INDUSTRIES, INC.
2850 WEST 3RD
CLEVELAND OHIO 44113

of a permit to operate:

MIXERS AND KETTLES
BURNER POTS 5,6,10,12,13,14,15,16

The following terms and conditions are hereby expressly incorporated into this permit to operate:

Condition 1

The above described air contaminant source is now operating, and over the period covered by the permit will be operated, in full compliance with all applicable state and federal laws and regulations.

Condition 2

Prior to any physical change in, or change in the method of operation of, this air contaminant source which increases the amount of any air pollutant emitted, or results in the emission of any air pollutant not previously emitted, a permit to install must be granted by the Ohio Environmental Protection Agency (See ~~Chapter EP-00~~ OAC 3745-31 of the regulations).

Condition 3

The Director of the Ohio Environmental Protection Agency, or his authorized representative, may enter upon the premises of the source operation at any reasonable time and subject to safety requirements of the person in control of the premises for the purpose of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants and determining compliance with all applicable State and Federal air pollution laws and regulations and the terms and conditions of this permit.

Condition 4 (This condition applicable if checked: ☐)

Upon declaration of an Air Pollution Alert, Warning or Emergency Episode this air contaminant source will follow those emission reduction procedures enumerated in the Emergency Action Plan approved by the Director for this source.

Condition 5

This permit to operate shall be effective until 01/12/81. You will be contacted approximately four months prior to this date regarding the renewal of this permit. If you are not contacted, please write to this agency.

Condition 6

A permit fee in the amount specified above must be remitted within fifteen (15) days of the effective date of this permit.

Condition 7

The Director must be notified in writing prior to any transfer of a permit to operate. Such transfer shall not take place without the written permission of the Director.

Condition 8 (This condition is applicable if checked: ☐)

This permit is subject to the supplementary conditions attached.

OHIO ENVIRONMENTAL PROTECTION AGENCY

Ned E. Williams
Director

10835

AP-PS-202

OhioEPA

Re: Cleveland
Application for Burner Pots Nos. 1, 2, 3 and 4 - Burner Modification to burn gas and No. 2 Fuel Oil
Received November 7, 1977
From N. L. Industries, Inc.

January 27, 1978

N. L. Industries, Inc.
2850 West 3rd Street
Cleveland, Ohio 44113

CERTIFIED MAIL

RECEIVED FEB - 2 1978

Attention: Robert C. Glatz

Gentlemen:

Enclosed is the Ohio EPA Permit To Install which will allow you to install the described source in the manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

As indicated on the permit, you are required to pay a permit fee as provided for by Rule 3745-45-02 of the Ohio Administrative Code (former Ohio EPA Rule EP-39-02). The exact amount of this fee is indicated on page 1 of the Permit To Install. This amount must be remitted within fifteen (15) days of the effective date of the Permit To Install. Checks should be made payable to: Treasurer, State of Ohio and sent to Permits Bookkeeper, Division of Air Permits and Compliance Monitoring, 361 East Broad Street, Columbus, Ohio 43215.

Under OAC 3745-45 (former EP-39-05) no fee may be charged:

> The State or any political subdivision thereof, including educational or medical facilities owned by the State or a political subdivision.
> Any person exempted from taxation by Section 5709.07 or Section 5709.12 of the Ohio Revised Code.

If you qualify for a permit fee exemption as stated above, return the enclosed fee statement with written attestation of such exemption, using the enclosed envelope.

Under Ohio Revised Code, Chapters 119 and 3704, this permit will take effect on the date indicated unless you or an objector requests an adjudication hearing within thirty (30) days of the date of issuance, as provided for by Rule 3745-47-13 of the Ohio Administrative Code (former Ohio EPA Rule EP-40-13). At an adjudication hearing you may appear in person, or be represented by your attorney, or by such other representative as is permitted

to practice before this agency, or you may present your position, arguments, or contentions in writing. At the hearing you may present evidence and examine witnesses appearing for and against you. Requests for hearing shall be in writing and shall specify the issues of fact and law to be contested. Requests for hearing should be sent to the Hearing Clerk, Box 1049, 361 East Broad Street, Columbus, Ohio 43215.

The Director may withdraw this permit at any time before it takes effect.

If you have any questions, please contact the Ohio EPA District Office or local air pollution control agency to which you submitted your application.

Very truly yours,

Thomas E. Crepeau

Thomas E. Crepeau, Chief
Division of Air Permits and Compliance Monitoring

TEC/bs

Copy to Cleveland Division of Air Pollution Control
" " U.S. EPA

Substantial construction for installation must take place within eighteen months of the effective date of this permit. This deadline may be extended by up to twelve months, if application is made to the Director no less than sixty days before the expiration of this permit and the party shows good cause for any such extension.

The proposed source shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, examining records or reports pertaining to the construction, modification or installation of the above described source of environmental pollutants.

Unless exempt, a permit fee as specified above must be remitted within 15 days of the effective date of this permit to install, to the Treasurer, State of Ohio.

This permit shall apply only to the source shown on the plans approved by the Ohio Environmental Protection Agency.

The City of Cleveland Division of Air Pollution Control, Bureau of Engineering Services shall be notified, in writing as to (a) the construction starting date (b) the construction completion date and (c) the date the facilities were placed into operation.

OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install

Application No. 13-392

Applicants Name: N. L. Industries, Inc. Permit Fee: $65.00

Address: 2850 West Third Street

City: Cleveland State: Ohio 44113

Telephone: (216) 621-2361

Description of Proposed Source: Burner Pots No. 1, No. 2, No. 3, No. 4 - Burner Modification to burn gas and No. 2 Fuel Oil

Issuance Date: January 27, 1978

Effective Date: March 13, 1978

The above named entity is hereby granted a permit to install for the above described source pursuant to Chapter 3745-31 of the Ohio Administrative Code (former Ohio EPA Regulation EP-30). Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described source of pollutants will be granted the necessary operating permits. This permit is granted subject to the following conditions attached hereto:

Ohio Environmental Protection Agency

Ned E. Williams

by Ned E. Williams, P.E.
Director
361 East Broad Street
Columbus, Ohio 43215

State of Ohio Environmental Protection Agency, Box 1049, 361 East Broad Street, Columbus, Ohio 43216 (614) 466-8565

SEP 09 1977

RECEIVED
SEP 13 1977
N L INDUSTRIES

CERTIFIED MAIL

1318000222 P001

N.L. INDUSTRIES, INC.
R.C. GLATZ
2850 WEST 3RD
CLEVELAND, OHIO OHIO 44113

OhioEPA

James A. Rhodes
Governor

Ned E. Williams, P.E.
Director

Dear Sir:

Enclosed are Permit(s) to Operate which allow you to operate the described air contaminant source(s) in the manner indicated in the permit(s). Because these permit(s) contain several conditions and restrictions, I urge you to read them carefully.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency and the Environmental Law Division of the Office of the Attorney General within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address:

Environmental Board of Review
395 East Broad St.
Columbus, Ohio 43215

If you have any questions, please contact the air pollution control agency to which you submitted your application. A list of these agencies is enclosed for your convenience.

Very truly yours,

Thomas E. Crepeau

Thomas E. Crepeau, Chief
Div. of Air Permits & Compliance Monitoring

AP-PS-205
06/16/77

100% Recycled Paper

OhioEPA

State of Ohio Environmental Protection Agency
James A. Rhodes, Governor
Ned E. Williams, Director

02

Permit to Operate an Air Contaminant Source
Terms and Conditions

Date of Issuance 09/09/77 Application Number 1318000222P001

Effective Date 09/09/77 Permit Fee $ 50

This document constitutes issuance to: N.L. INDUSTRIES, INC.
2850 WEST 3RD
CLEVELAND OHIO 44113

of a permit to operate:
LEAD SMELTING BLAST FURNACE
BLAST FURNACE

The following terms and conditions are hereby expressly incorporated into this permit to operate:

Condition 1

The above described air contaminant source is now operating, and over the period covered by the permit will be operated, in full compliance with all applicable state and federal laws and regulations.

Condition 2

Prior to any physical change in, or change in the method of operation of, this air contaminant source which increases the amount of any air pollutant emitted, or results in the emission of any air pollutant not previously emitted, a permit to install must be granted by the Ohio Environmental Protection Agency (See ~~Chapter 3745~~ OAC 3745-31 of the regulations).

Condition 3

The Director of the Ohio Environmental Protection Agency, or his authorized representative, may enter upon the premises of the source operation at any reasonable time and subject to safety requirements of the person in control of the premises for the purpose of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants and determining compliance with all applicable State and Federal air pollution laws and regulations and the terms and conditions of this permit.

Condition 4 (This condition applicable if checked: ☒)

Upon declaration of an Air Pollution Alert, Warning or Emergency Episode this air contaminant source will follow those emission reduction procedures enumerated in the Emergency Action Plan approved by the Director for this source.

Condition 5

This permit to operate shall be effective until 09/08/80. You will be contacted approximately four months prior to this date regarding the renewal of this permit. If you are not contacted, please write to this agency.

Condition 6

A permit fee in the amount specified above must be remitted within fifteen (15) days of the effective date of this permit.

Condition 7

The Director must be notified in writing prior to any transfer of a permit to operate. Such transfer shall not take place without the written permission of the Director.

Condition 8 (This condition is applicable if checked: ☐)

This permit is subject to the supplementary conditions attached.

OHIO ENVIRONMENTAL PROTECTION AGENCY

Ned E. Williams
Director

8708

AP-PS-202

OhioEPA

State of Ohio Environmental Protection Agency
James A. Rhodes, Governor
Ned E. Williams, Director

02

Permit to Operate an Air Contaminant Source
Terms and Conditions

Date of Issuance 09/09/77 Application Number 1318000222P003

Effective Date 09/09/77 Permit Fee $ 50

This document constitutes issuance to: N.L. INDUSTRIES, INC.
2850 WEST 3RD
CLEVELAND OHIO 44113

of a permit to operate:
TWO HORIZONTAL SAWS
BATTERY SAWS

The following terms and conditions are hereby expressly incorporated into this permit to operate:

Condition 1

The above described air contaminant source is now operating, and over the period covered by the permit will be operated, in full compliance with all applicable state and federal laws and regulations.

Condition 2

Prior to any physical change in, or change in the method of operation of, this air contaminant source which increases the amount of any air pollutant emitted, or results in the emission of any air pollutant not previously emitted, a permit to install must be granted by the Ohio Environmental Protection Agency (See ~~Chapter EP-00~~ OAC 3745-31 of the regulations).

Condition 3

The Director of the Ohio Environmental Protection Agency, or his authorized representative, may enter upon the premises of the source operation at any reasonable time and subject to safety requirements of the person in control of the premises for the purpose of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants and determining compliance with all applicable State and Federal air pollution laws and regulations and the terms and conditions of this permit.

Condition 4 (This condition applicable if checked: ☐)

Upon declaration of an Air Pollution Alert, Warning or Emergency Episode this air contaminant source will follow those emission reduction procedures enumerated in the Emergency Action Plan approved by the Director for this source.

Condition 5

This permit to operate shall be effective until 09/08/80. You will be contacted approximately four months prior to this date regarding the renewal of this permit. If you are not contacted, please write to this agency.

Condition 6

A permit fee in the amount specified above must be remitted within fifteen (15) days of the effective date of this permit.

Condition 7

The Director must be notified in writing prior to any transfer of a permit to operate. Such transfer shall not take place without the written permission of the Director.

Condition 8 (This condition is applicable if checked: ☐)

This permit is subject to the supplementary conditions attached.

OHIO ENVIRONMENTAL PROTECTION AGENCY

Ned E. Williams
Director

8709

AP-PS-202

STATE OF OHIO, COUNTY OF CUYAHOGA

Prev. PA

No. A18604265 CERTIFICATE OF TITLE TO A MOTOR VEHICLE No. 18 1810096

This is to certify that:

N L INDUSTRIES FEB 27 1979

(Owner's First Middle Last Name) (Date This Title Issued)

2850 W 3 RD ST CLEVELANDOHIO

(Owner's Address in Full)

is the owner of the following described Motor Vehicle:

YEAR 1966 Mfr's Serial No. U615ST1565

MAKE MACK MODEL RNB236

BODY TYPE CAB & CHASSIS ONLY Mfr No. NONE

having acquired title to said Motor Vehicle from:

Previous Owner DOEHLER JARVIS DIVISION

NATIONAL LEAD CO OLD READING PIKE POTTSTOWN PA

(Address of Previous Owner in Full)

on which Motor Vehicle are the following liens, mortgages or encumbrances:

If none, state here NONE

FIRST LIEN: Nature of Lien

Held by

Holder's Address in Full

Date of Notation Clerk's Signature

Above Lien Discharged Date of Cancellation

By Signature of Lienholder By Clerk's Signature Deputy Clerk

SECOND LIEN: Nature of Lien

Held by

Holder's Address in Full

Date of Notation Clerk's Signature

Above Lien Discharged Date of Cancellation

LICENSE ISSUED 1979
TRANSFER ISSUED 197..
TRUCK WEIGHT 14,000
Registrar

By Signature of Lienholder By Clerk's Signature Deputy Clerk

THIRD LIEN: Nature of Lien

Held by

Holder's Address in Full

Date of Notation Clerk's Signature

Above Lien Discharged Date of Cancellation

By Signature of Lienholder By Clerk's Signature Deputy Clerk

If Dealer, Vendor's License No. Dlrs. Permit No.

Delivered Purchase Price $ CONV Ohio Sales or Use Tax Paid $

The mileage registered on the odometer of this vehicle at the time the previous title was assigned was 275300 miles

Witness my hand and official seal this day of FEB 27 1979 PBC

(SEAL) Gerald E Fuerst Clerk of Courts

By Deputy Clerk

Previous Number PENNA 404034

STATE OF OHIO, COUNTY OF CUYAHOGA

CERTIFICATE OF TITLE TO A MOTOR VEHICLE No. 186168280

This is to certify that MASTER METALS INC JUNE 1 1970

(Owner's First Middle Last Name) (Date This Title Issued)

2850 W 3 ST CLEVELAND OHIO 186168280

(Owner's Address in Full)

is the owner of the following described Motor Vehicle:

YEAR 1958 Mfr's Serial No. 1145842

MAKE STECO MODEL DUMP

BODY TYPE SEMI TRAILER

having acquired title to said Motor Vehicle from:

Previous Owner TRI BROOK INC

BROOKVILLE PENNA

(Address of Previous Owner in Full)

on which Motor Vehicle are the following mortgages or encumbrances:

If none, state here NONE

LICENSE ISSUED 197 TRANSFER ISSUED TRUCK WEIGHT 12,280 Registrar of Motor Vehicles

LICENSE ISSUED 197 TRANSFER ISSUED TRUCK WEIGHT 12,280 Registrar of Motor Vehicles

FIRST LIEN: Nature of Lien

Held by

Holder's Address in Full

Date of Notation

Above Lien Discharged

LICENSE ISSUED 197 TRANSFER ISSUED TRUCK WEIGHT 12,280 Registrar of Motor Vehicles

Date of Cancellation

By Signature of Lienholder By Clerk's Signature Deputy Clerk

SECOND LIEN: Nature of Lien

Held by

Holder's Address in Full

Date of Notation

Above Lien Discharged

LICENSE ISSUED 197 TRANSFER ISSUED TRUCK WEIGHT 12,280 Registrar of Motor Vehicles

Clerk's Signature

Date of Cancellation

LICENSE ISSUED 197 TRANSFER ISSUED TRUCK WEIGHT 12,280 Registrar of Motor Vehicles

By Signature of Lienholder By Clerk's Signature Deputy Clerk

THIRD LIEN: Nature of Lien

Held by

Holder's Address in Full

Date of Notation

Above Lien Discharged

LICENSE ISSUED 197 TRANSFER ISSUED TRUCK WEIGHT 12,280 Registrar of Motor Vehicles

Clerk's Signature

Date of Cancellation

LICENSE ISSUED 197 TRANSFER ISSUED TRUCK WEIGHT 12,280 Registrar of Motor Vehicles

By Signature of Lienholder By Clerk's Signature Deputy Clerk

LICENSE ISSUED 197 TRANSFER ISSUED TRUCK WEIGHT 12,280 Registrar of Motor Vehicles

If Dealer: Vehicle License No. 00 Dirs. Permit No. 135 00

Delivered Purchase Price $ Ohio Sales or Use Tax Paid $ JUNE 70 LMP

LICENSE ISSUED 197 TRANSFER ISSUED TRUCK WEIGHT 12,280 Registrar of Motor Vehicles

Witness my hand and official seal this day of 19

(SEAL) Emil J. Masgay Clerk of Courts

Revised 11/66 By Deputy Clerk

STATE OF OHIO
BUREAU OF MOTOR VEHICLES

COMMERCIAL REGISTRATION CARD

CERTIFICATE OF TITLE NO.	NEW	DATE PLATE ISSUED (MO. DAY YR.)	COUNTY	AGENCY NO.	EXPIRES LAST DAY OF (MO. YR.)	VALIDATION NO.	LICENSE NO.
186168280		030979	1814	2001	0580	TT13006511	130374

TAXING DISTRICT

1. OWNER'S COUNTY OF RESIDENCE: CU18

2A. IF OWNER LIVES INSIDE CORPORATION LIMITS, INSERT THE CITY OR VILLAGE IN WHICH HE LIVES: CLEVELAND

2B. IF OWNER LIVES OUTSIDE CORPORATION LIMITS INSERT TOWNSHIP IN WHICH HE LIVES:

SHOW 2A OR 2B - NEVER BOTH

LOCAL TAX FEE	PLATE FEE	WEIGHT	OWNER NAME
500	27775	12280	MASTER METALS INC

VEHICLE YEAR	VEHICLE MAKE	VEHICLE TYPE (TR TK TL or FT)	OWNER HOME ADDRESS	Y-JOINT OWNER / X-COMMERCIAL
58	STE	TL	2850 W 3 ST	

VEHICLE SERIAL NO.	DO NOT USE	OWNER POST OFFICE	STATE	ZIP CODE
1145842		CLEVELAND	OH	

070170

VALIDATION SEAL
THIS SPACE MUST SHOW DEPUTY REGISTRAR SEAL TO BE VALID.

ADDITIONAL NAME LINE

DEPUTY NAME	DEPUTY TOWN
ROBERT T BENNETT	CLEVELAND

N

Y

TEAR OFF THIS STUB

Y

Master Metals Inc Charles Fairbanks

030979 kw

TO OWNER

STATE OF OHIO
BUREAU OF MOTOR VEHICLES

COMMERCIAL REGISTRATION CARD

CERTIFICATE OF TITLE NO.	NEW	DATE PLATE ISSUED (MO. DAY YR.)	COUNTY	AGENCY NO.	EXPIRES LAST DAY OF (MO. YR.)	VALIDATION NO.	LICENSE NO.
181810096	X	030979	1814	2001	0580	TT15006852	15R772

TAXING DISTRICT

1. OWNER'S COUNTY OF RESIDENCE: CU18

2A. IF OWNER LIVES INSIDE CORPORATION LIMITS, INSERT THE CITY OR VILLAGE IN WHICH HE LIVES: CLEVELAND

2B. IF OWNER LIVES OUTSIDE CORPORATION LIMITS INSERT TOWNSHIP IN WHICH HE LIVES:

SHOW 2A OR 2B - NEVER BOTH

LOCAL TAX FEE	PLATE FEE	WEIGHT	OWNER NAME
500	34975	14520	N L INDUSTRIES

VEHICLE YEAR	VEHICLE MAKE	VEHICLE TYPE	OWNER HOME ADDRESS	Y-JOINT OWNER
66	MAC	TK	2850 W 3 ST	

VEHICLE SERIAL NO.	DO NOT USE	OWNER POST OFFICE	STATE	ZIP CODE
U615ST1565		CLEVELAND	OH	B

VALIDATION SEAL
THIS SPACE MUST SHOW DEPUTY REGISTRAR SEAL TO BE VALID.

DEPUTY NAME	DEPUTY TOWN
ROBERT T BENNETT	CLEVELAND

ADDITIONAL NAME LINE

030979

N

Exhibit 8

Former Employees Cleveland Smelter

(Source: NL Industries, Phone Directories Available years 1955-1979)

Name	Position	Address	Phone	Year
L.H. Herthneck	Mgr.	4468 W. 213th Street Fairview Park, Ohio	Edison 1-5887	1951-1954
		1851 Westhill Blvd Westlake, Ohio	(216) 871-8698	1955-1973
J. W. Roper	Metal Buyer	20856 Northwood Av. Fairview Park, Ohio	(216) Edison 3-1012	1962-1965
G.B. Smallen	Supt.	24592 Brittany Av. E. Detroit, Michigan	(313) 777 6164	1967-1968
Kenneth Hahn	Supt.	21901 Robinhood Dr. Fairview Park, Ohio	(216) 734-3221	1969-1972
Richard C. Egan	Supt	6767 Wallace Blvd. No. Ridgeville, Ohio	(216) 327 7690	1972-1976
P.A. Kasmar	Mgr. Metal Purch.	160 River Road Hinckley, Ohio	(216) 278 4363	1972-1973

(No phone books for years 1974-1975)

Note: by 1976 the facility is no longer listed and the company has reorganized. The facility would have been included in the Metal Division. In this new structure, metals purchases may have been made the Metals Division.

H. J. Heinkele	Dir. Mktg & Mat. Metals Division	36 Colonial Dr. Covent, New Jersey	(212) 730 2754	1976- 1979
Robert Glatz	Plt. Mgr.	No listed address	(216) 871 3861	1977
John Berlin	Purch. Mgr. Scrap Metals (Div.)	No listed address	(404) 458 3202	1978
Joseph Finney	Dir. Of Material	No listed address	(609) 896 2210	1979
William Crake	Plt Mgr.	No listed address	(216) 621 2361	1979

MORTON
3-3198

NL INDUSTRIES, INC.
CORPORATE ENVIRONMENTAL SERVICES
P.O. BOX 1090, WYCKOFFS MILL ROAD
HIGHTSTOWN, NJ 08520

FAX: (609) 443-2374 **CONFIRM:** (609) 443-2412

☐ URGENT DELIVER IMMEDIATELY ☐ CONFIRMATION REQUIRED

DATE: 9/5/96 **FAX #:** _____ 8 **PAGES (INCL. COVER)**

TO: Mr. Richard Martin

FROM: Jay Young

COMMENTS:

Per our conversation of September 4, 1996, I am sending via facsimile NL's response to EPA's Master Metals Request for Information. Hard copy will follow by Federal Express. If you have any questions, please call me at 609-443-2407. Thank you for your assistance.

CONFIDENTIALITY NOTICE: This telecopy transmission contains confidential information which is legally privileged. The information is intended only for the use of the individual or entity named above. If you are not the intended recipient, you are hereby notified that any disclosure of this telecopied information is strictly prohibited. If you have received this telecopy in error, please immediately notify NL Industries, Inc. by telephone to arrange for return of the original documents.

Jay F. Young
Principal Environmental Engineer

NL

VIA FACSIMILE

September 5, 1996

Mr. Richard Morton
U.S. Environmental Protection Agency
CA-29A
Region 5
Office of Regional Counsel
77 West Jackson Blvd,
Chicago, Illinois, 60604-3590

Re: Master Metals Request for Information Dated May 22, 1996

Dear Mr. Morton:

Enclosed please find NL's response to the referenced Request. As we discussed, I am sending by Federal Express the complete response with exhibits. If you have any further questions, please call me or Mr. Marcus Martin, NL's environmental counsel. Mr. Martin can be reached by telephone at 303 592 3189.

Sincerely,

Jay Young

Jay Young

cc: Marcus Martin, Bartlit Beck Herman Palenchar & Scott

NL Industries, Inc.
Corporate Environmental Services
P.O. Box 1090, Hightstown, N.J. 08520 Tel. (609) 443-2407
Telecopier (609) 443-2374

Response To Master Metals Request for Information
Dated May 22, 1996

Responses to EPA's Request for Information are as follows:

1. Identify all persons consulted in the preparation of the answers to these questions.

Response:

Jay Young
Principal Environmental Engineer
NL Industries, Inc.
Wyckoffs Mill Rd.
Hightstown, New Jersey 08520

Ms. Lisa Broomas
Administrative Assistant to
NL's General Counsel and Manager of File Information
NL Industries, Inc.
Houston, Texas 77210

Mr. John Hager
Dresser Industries, Inc.
Records Center
Houston, Texas 77032

2. If you have reason to believe that there may be persons able to provide a more detailed or complete response to any question or who may be able to provide additional responsive documents, identify such persons. Provide the current address and telephone number of each.

Response: None. Individuals who may be able to provide a more detailed response to these Requests are believed to be retired or no longer in the employ of NL Industries, Inc. Exhibit 1 identifies the individuals employed at the site at the time of the sale to Master Metals.

3. If applicable, list the EPA Identification Numbers of the Respondent.

Response: Not applicable.

4. Did you ever use, purchase, generate, store, treat, dispose of, or otherwise handle any materials at the Site, or transport any materials or arrange for their transport to the Site? If your answer to this question is anything but an unequivocal no, answer the following questions:

a. Identify the chemical composition, characteristics, physical state (e.g. solid, liquid), and trade or chemical name of each material.

Response: NL operated the facility from 1933 to 1979. Because no present employees are believed to have been employed at the Site, NL has no present knowledge relating to the physical plant or the day to day operation of the facility other than what can be inferred from documents discovered during the search for responsive information. The potentially responsive documents have been attached hereto as exhibits where appropriate. Exhibit 2, Notification of Hazardous Waste Site, identifies the nature of the operation and wastes handled at the site. Exhibit 3 identifies the inventory of materials stored at the site at the time of the 1979 sale of the facility.

b. State whether any of these materials were or contained hazardous substances as defined by CERCLA Section 101(14), 42 U.S.C. U9601(14);

Response: See Response 4.a., above. The materials handled at the Site contained principally metals associated with the recycling of lead-acid batteries and the refining of lead alloys.

c. Identify the person and process which generated each such material, disposed of or otherwise handled by you;

Response: See Response 4.a., above.

d. identify how each such material was used, purchased, generated, stored, treated, disposed of or otherwise handled by you;

Response: See Response 4.a., above. Materials required for facility operation were purchased from vendors or via tolling agreement. Exhibit 4, identifies contracts for the purchase of materials and services at the Site. Exhibit 5 includes tolling agreements with ESB, Globe Union and Gould, Inc.

e. state when each such materials were used, purchased, generated, stored, treated, transported, disposed of or otherwise handled by you;

Response: See Response 4.a., b., c. and d., above.

f. state where each such materials were used, purchased, generated, stored, treated, transported, disposed of or otherwise handled by you; and

Response: See Response 4.a., b., c. and d., above.

g. identify the quantity of each such materials used, purchased, generated, stored, treated, transported, disposed of or otherwise handled by you.

Response: See Response 4.a., b., c., and d., above.

5. State all times where NL Industries held an ownership interest and all times where NL Industries held an operational interest in the facility now known as Master Metals. Fully describe the nature of these interests, including each change and the date of such interest. Describe the manufacturing and maintenance processes at the facility now known as Master Metals during all times where NL Industries held an ownership or operating interest including:

a. a description of all materials purchased for use in your operation(s), including the chemical identity and chemical composition of all identified, and the supplier;

b. a description of all manufacturing processes that generated any by-products or wastes;

c. a description of all maintenance operations that generated any by-products or wastes;

d. a description of all products, by-products, and wastes generated.

Response: See Response 4.a.. Notwithstanding the aforementioned, NL had interest or ownership of the facility from 1933 to 1979. The extent of NL's ownership of the Site is described by Exhibit 6. Exhibit 7 describes the facilities and equipment which comprise the Site.

6. Have you or any other person ever accepted materials for transportation to the Site from any person or transported materials to the Site? If the answer to this question is anything but an unequivocal no, identify:

a. the persons from whom you or such other persons accepted materials for transport;

b. every date on which materials were so accepted or transported;

c. for each transaction or shipment, the nature of the materials including the chemical content, characteristics, physical state (e.g., solid or liquid), the process for which the substance was used or the process which generated the substance or weather the materials came from a construction project;

d. the owner of the materials so accepted or transported;

e. the quantity of the materials involved (weight or volume) in each transaction or shipment and the total quantity for all transactions or shipments;

f. all tests or analyses analytical results concerning each of the materials;

g. the precise location to which each material actually was transported;

h. the person(s) who selected the Site as the place to which the materials would be transported;

i. the amount paid in connection with each transaction or shipment, the method of payment, and the identity of the person from whom payment was received;

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

k. whether the materials involved in each transaction or shipment were transshipped through, or were stored or held at, any intermediate site prior to final treatment or disposal;

l. what was done to the materials once they were brought to the Site;

m. the final disposition of each of the materials involved in such transactions or shipments;

n. the measures taken by you to determine the actual methods, means and the site of treatment or disposal of the materials involved in the transaction or shipment;

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

p. if the materials came from a construction or wrecking project, the type of the project (e.g., dismantling of a building, road building), the types of materials (e.g.,bricks, wood), the type of insulation (e.g., asbestos, rock wool), the type of metal and a description of any other kind of waste.

Response: NL has located no information responsive to this request. NL continues its search for responsive information and reserves the right to supplement its responses as information becomes available.

7. Identify all persons, including yourself, who may have arranged for the disposal or treatment of materials at or to the Site, In addition, identify:

a. the persons with whom you or other such persons made such arrangements;

b. every date on which such arrangements took place;

c. for each transaction, the nature of the materials including the chemical content, characteristics, physical state (e.g., solid, liquid), and the process for which the substance was used or the process which generated the substance;

d. the owner of the materials so disposed of or treated;

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

f. all tests or analyses and the analytical results concerning each of the materials;

g. the precise locations at which each material actually was disposed of or treated;

h. the person(s) who selected the Site as the place at which materials were to be disposed of or treated;

i. the amount paid in connection with each transaction, the method of payment, and the identity of the person by whom payment was made;

j. where the person identified in i., above, intended to have such materials treated or disposed of and all evidence of this intent;

k. 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;

l. what was done to the materials once they were brought to the Site;

m. the final dispositions of each of the materials involved in such transactions;

n. the measures taken by you to determine the actual methods, means and the site of treatment or disposal of the materials involved in each transaction; and

o. the type and number of containers in which the materials were contained when they were accepted for transport, and subsequently until they were deposited at the site and all markings on such containers.

Response: See Response 4.d., above. In addition, NL is alleged to have accepted spent lead-acid batteries from SLC, later known as Standard Lead Corporation, under a tolling agreement in which

SLC performed battery breaking services for retailers and battery manufacturers and shipped the lead containing battery components to the Cleveland Smelter. This matter was brought to NL's attention in an EPA Request for Information dated April 1, 1995. NL has found no information in its files to substantiate the allegation. NL continues its review of the matter and reserves the right to supplement its response to this present Request regarding the Cleveland Smelter.

8. If you have reason to believe that there may be persons able to provide a more detailed or complete response to any question contained herein or who may be able to provide additional responsive documents, identify such persons and the additional information or documents that they may have. Provide the individual's current (or the most recent known) address and telephone number.

Response: As indicated in response to EPA's Request for Information No. 2, individuals who could have information responsive to these Requests are believed to be retired or no longer in the employ of NL Industries, Inc.. Notwithstanding the aforementioned, former employees who managed or supervised the Site are were identified from available internal phone books. These individuals are identified with their last known addresses and phone numbers in Exhibit 8.

JAN 30
HELEN - PLEASE FILE

NL INDUSTRIES

METAL DIVISION

Midwest Region

General Cable
Monticello, IL

January 29, 1976

General Cable Corp.
P. O. Box 489
Monticello, Illinois 61856

Mr. Thomas O. Kotal

Dear Sir,

There appears to be a misunderstanding regarding the freight charges per your letter of 1/26/76.

The shipment in question (#6301900) was shipped from Cleveland 1/5/76, FOB McCook, Ill., on your order #1088-011. This was sent collect and the freight difference was deducted from the invoice. The shipments you refer to as FOB delivered, were on your order 8-011 which were shipped prepaid on 1/14 and 1/15.

We therefore are returning the freight bill for your payment. If you have any further questions, I will be pleased to assist you.

Very truly yours

Donald Tanney

Donald Tanney

DT/RJ
Enc.

BCC: KM
BN
HK ✓

900 West 18th Street, Chicago, Illinois 60608 • (312) 226-3700
Division of N L Industries, Inc.

N Metals

Prestolite

July 9, 1979

Mr. John Peterson
Prestolite Battery Div.
P.O. Box 931
Toledo, Ohio 73694

Dear John:

Confirming our recent agreement, NL will receive scrap from Prestolite and will supply Prestolite with antimonial lead alloys under the following terms:

1) NL will sell Prestolite antimonial lead alloys at NL's price for lead, f.o.b. NL's facility. This price applies for all alloys presently being furnished by NL to Prestolite. Should Prestolite require a new alloy, a special price will be negotiated.

2) For a twelve month period, beginning June 1, 1979, NL will supply approximately 3,600 tons of antimonial lead to Prestolite. Shipping points for NL shall be Atlanta, Ga. and Pedricktown, N.J. Prestolite's receiving points shall be East Point, Ga. and Reading, Pa.

3) NL shall pay Prestolite $15.00 per cwt. for scrap whole batteries f.o.b. NL's facility. This price shall be adjusted by $0.50 per cwt. for every $1.00 per cwt. charge in the NL price for lead from a base price of $48.00 per cwt.

4) NL shall purchase Prestolite's plant scrap at the NL lead price for the metal contained less a smelting charge of $241.00 per gross ton of scrap. All plant scrap shall be f.o.b. NL's facilities.

5) The amount of scrap (both batteries and plant scrap) that NL shall receive from Prestolite shall not exceed the quantities shipped by Prestolite during the period March 1, 1978 - February 29, 1979, to NL's facilities at Atlanta, Ga. and Pedricktown, N.J.

Metal Division/NL Industries, Inc.
P.O. 3618, Hightstown, N.J. 08520 Tel. (609) 448-3200

These quantities are to be reviewed every three months by NL and Prestolite to insure compliance. A breakdown of the quantities of scrap for the above mentioned period is attached.

6) Purchases of scrap by NL and the sale of alloys to Prestolite shall be treated as separate transactions. Invoicing for purchases and sales shall be between NL's division headquarters in Hightstown and Prestolite's Atlanta and Reading plants.

7) This entire agreement is assignable in whole or part only if both parties agree in writing to any such assignments.

John, I think the above has summed up our agreement. Please note your agreement by signing and returning this letter to my office. Enclosed is a copy for your files.

Thank you for your cooperation in reaching this agreement.

Very truly yours,

David F. Cook

David F. Cook
National Sales Manager
Battery Products

John Peterson

DFC/ab

Enclosures

ATLANTA

Month	Plant Scrap Gross Wt.	Whole Batteries Gross Wt.
March '78	455,584	206,595
April '78	501,268	171,448
May '78	415,570	161,075
June '78	417,965	172,475
July '78	260,595	76,561
August '78	597,862	222,230
September '78	496,664	86,125
October '78	732,649	154,309
November '78	471,381	180,105
December '78	279,373	265,035
January '79	385,106	221,405
February '79	574,826	209,725
	5,588,843	2,127,088

PEDRICKTOWN

Month	Plant Scrap Gross Wt.	Whole Batteries Gross Wt.
March '78	-0-	33,120
April '78	-0-	22,115
May '78	-0-	44,730
June '78	-0-	-0-
July '78	111,815	49,360
August '78	201,150	-0-
September '78	73,140	14,180
October '78	-0-	39,040
November '78	116,780	-0-
December '78	38,770	23,620
January '79	-0-	18,180
February '79	42,480	11,320
	584,135	255,665

Exhibit 6

Corp. relation

Master Metals, Inc.

January 11, 1933	-	The executive Committee of the Board of Directors authorized the acquisition of and interest in metal business conducted in Cleveland, Ohio by Master Builders Company and the formation of a new corporation, organized for the conduct of said business under the name Master Builders Metals, Inc. And the transfer of National Lead Company of 60% of the common stock of the new corporation.
March 3, 1933	-	Master Metals, Inc. Was incorporated in Ohio. Place of business - 2850 West Third Street, Cleveland, Ohio. National Lead Company owned 1200 shares common stock. Master Builders Company owned 800 shares common stock. In addition: National Lead Company subscribed for 1250 shares Class A preferred stock. Master Builders Company subscribed for 500 shares Class B preferred stock.

At some point prior to 1970, Master Metals, Inc. Became identified as Master Metal Division of National Lead Company.

October 28, 1970	-	Plan of Liquidation approved
December 8, 1970	-	Property deeded to National Lead Company (recorded January 11, 1971 in Records Vol. 12766, Page 509 of Cayahoga County, Ohio) conveying all parcels and deeds to National Lead Company in accordance with Plan of Liquidation of Master Metals, Inc., dated October 28, 1970.
1971	-	Master Metals Division became part of Central Region of Metal Division.
1976	-	Master Metals, Inc., merged into National Lead Company (name holder).

Currently Master Metals plant is identified as the Cleveland Plant of Metal Division.

Exhibit 7

Internal Memorandum

Date: January 2, 1979

To: J. Keverian Unit:

From: R. W. Merritt Unit:

Subject: Cleveland Property

Enclosed are four copies of a facilities summary and equipment list covering the Cleveland Plant.

It is estimated that disposition of equipment would require from four to six weeks.

R. W. Merritt

RWM:iod
encl. - 4

PROPERTY SUMMARY

Division	Metals
Plant	Cleveland
Plant Address	2850 West Third Street Cleveland, Ohio 44113
Plant Area	Approximately 4.8 acres
Buildings:	
Office	5,200 sq. ft.
Warehouse - Round House	16,000 sq. ft.
Welfare Bldg.	2,850 sq. ft.
Manufacturing Bldgs.	20,024 sq. ft.
Other Misc.	2,000 sq. ft.
Total Buildings	46,074 sq. ft.
Plantwide Facilities	
Rail Siding	Two sidings - B&O R.R.
Truck Dock	Four spaces
Gate House	Yes
Truck Scale	34' X 30 ton capacity
Central Vacuum System	20 HP Lamson Blower
Utilities	
Electricity	500 KVA 3 Ph. 240 V 200 Amp 3 Ph. 240 V 400 Amp Single Phase 240 V
Water	3" line from B&O R.R. 3" line from City
Gas	4" Main @ 80 psi
Oil	49,000 gallons storage capacity
Sewer	City sewers
Major Operations	1. Secondary Lead Smelting & Refining 2. Mixed Metals Refining, Alloying and Casting

Major Production Facilities

1. Analytical Lab	(a)	Fully equipped Wet Lab
	(b)	Atomic Absorption Spectrophotometer
	(c)	Spectronic 20
	(d)	Air Sampling Equipment - Hi-Volume
	(e)	Grinding, Pulverizing and Sampling Lab
	(f)	Personnel Sampling Equipment.
2. Maintenance Shop	(a)	Compressed Air Equipment
	(b)	Welding & Cutting Equipment
	(c)	Miscellaneous Maintenance Equipment
3. Battery Decasing	(a)	Two complete saw lines
	(b)	Case Crushing System
	(c)	Top Crushing System
	(d)	Conveying and separating equipment
	(e)	Acid Collection and Neutralization System
4. Blast Furnace Smelting System	(a)	Blast Furnace with Skip Hoist Feed System
	(b)	Oxygen Enrichment System
	(c)	Metallurgical Dust Collection System
	(d)	Sanitary Dust Collection System
	(e)	Charge Weighing System with Remote Print-out Unit
	(f)	Complete Control Instrumentation
	(g)	All necessary auxiliary equipment.
	(h)	Water Cooling & Softening System
5. Refining Facilities	(a)	Two 90-Ton Capacity Kettles
	(b)	Seven 60-Ton Capacity Kettles
	(c)	One 45-Ton Capacity Kettle
	(d)	Temperature Control Systems
	(e)	Eight Casting Tables
	(f)	Sanitary Dust Collection System
	(g)	Agitators and Pumps
6. Reverberatory Furnace	(a)	One Reverberatory Furnace -6'9" X 12'9"
	(b)	Burners, Controls & Instrumentation
	(c)	Air Injection System
	(d)	Metallurgical Dust Collection System
	(e)	Sanitary Dust Collection System
7. Mixed Metals Facilities	(a)	Kettles with Burners & Instrumentation
	(b)	Various molds for ingots, bars, etc.
	(c)	Agitators & Pumps
	(d)	Other Auxiliary Equipment

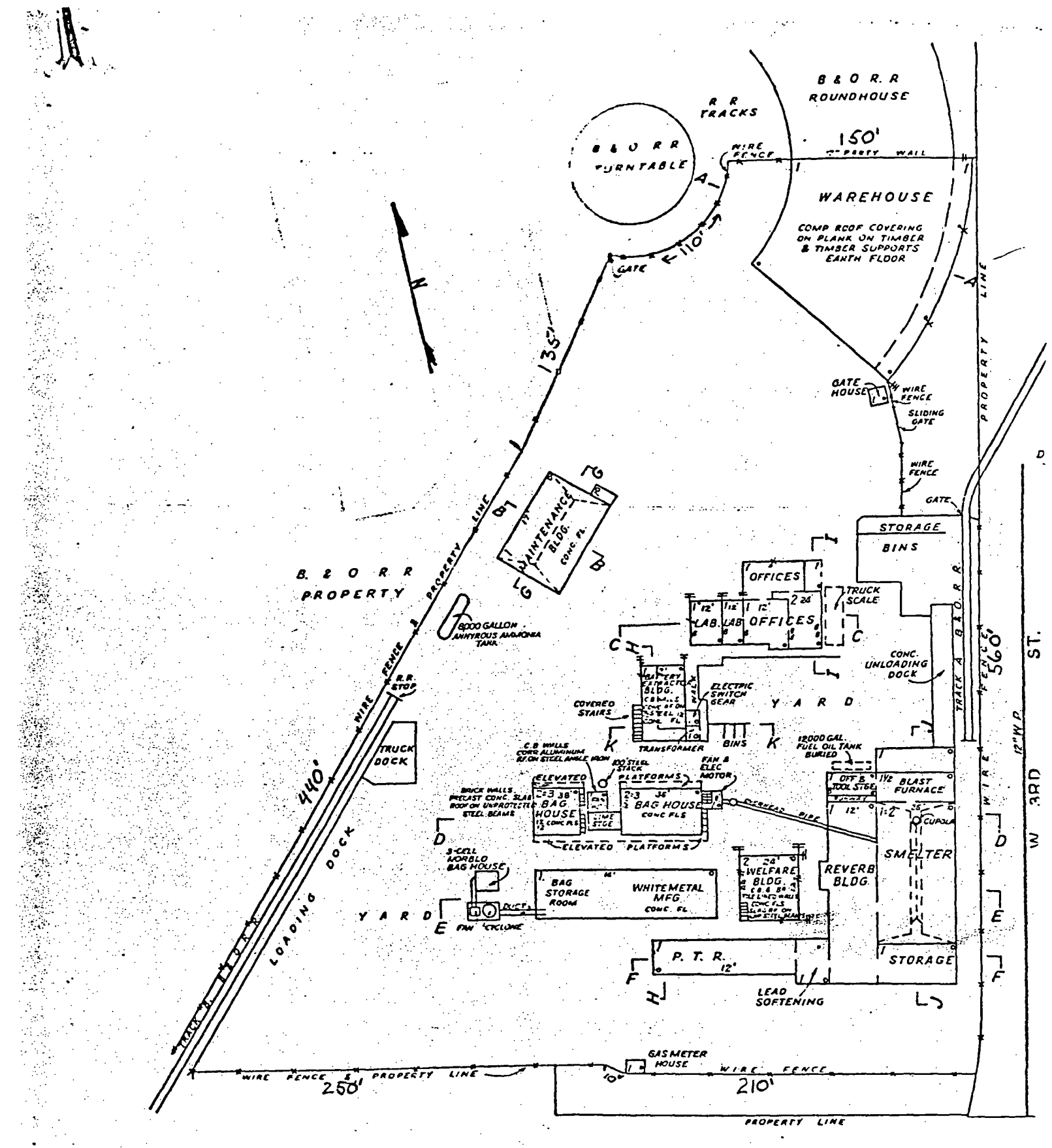
8. Mobile Equipment

(a) Two 3000# Capacity Fork Trucks
(b) One 3500# Capacity Fork Truck
(c) One 4000# Capacity Fork Truck
(d) Five 5000# Capacity Fork Trucks
(e) Two 6000# Capacity Fork Trucks
(f) One 7000# Capacity Fork Truck
(g) Three Hough Endloaders Model 25-B
(h) One Hough Endloader Model H-30
(i) One Waldon Endloader 1-1/4 yard capacity
(j) Two Power Sweepers
(k) Two Dump Trailers
(l) One Yard Tractor

9. Spare Equipment

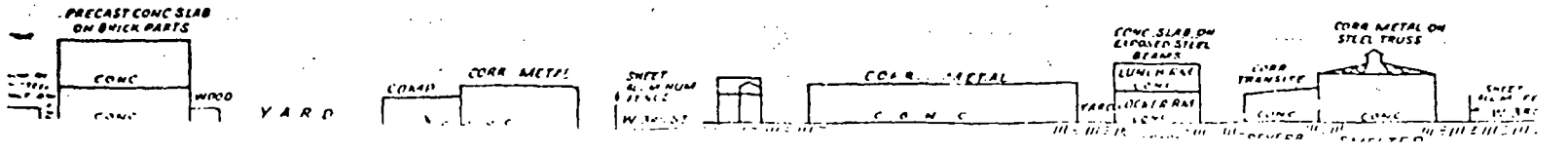
(a) Numerous Electric Motors
(b) Other miscellaneous spare equipment

RWM:iod
12/28/78



CITY OF CLEVELAND PROPERTY

CLEVELAND PLANT PLOT



Cleveland

EQUIPMENT LIST

Qty.	No.	Description	Size or Capacity	Condition	Stationary or Movable	Recommended Disposition	Time Req'd.	Comments
1		Blast Furnace	80 ton	Fair		Damage & Abandon		
1		Skip Hoist - N.L. Design Dwg. 5634-5-6	30 HP			Damage & Abandon		
1		Weigh Hopper - N.L. Design - Fairbanks - Pipe Lever Scale Dwg. 5634	2000 # Scale 1000 # Hopper	Fair		Damage & Abandon		
1		Vibration Feeder - Reynord FS 4880 S/N 9345-FS		Fair		Transfer or Sell		
1		Hydraulic Unit - Gaysron Model P45 8GF	1250 psi 45 gal. res. 10 HP motor	Fair		Transfer or Sell		
1		Roots Blower 1024 RAS-H Blower S/N 74739	2500 cfm	Fair		Transfer or Sell		
1		Air Weight Control Foxboro M/40 Stabilog S/N 1061433	0-30 oz. 2500 SCFM	Good		Transfer		
1		Combustion Box - N.L. design 00-5633		Poor		Abandon		
1		Therm-O-Syphon Tank N.L. design - 5' X 14' X 5'	350 cu/ft	Poor		Abandon		
1		Roof Exhaust Fan	3 HP motor cfm unknown	Fair		Abandon		
1		Bustle pipe burner	Maxon N.P.1-12 Assy. #62-20865 500,000 btu/hr	Good		Transfer		

EQUIPMENT LIST

Qty.	No.	Description	Size or Capacity	Condition	Stationary or Movable	Recommended Disposition	Time Req'd.	Comments
1		Dew Point Controller Foxboro Model 40 S/N 3357038	42 GR/SFC Max.	Good		Transfer		
1		Water Softener KISCO Twin - TKS - 60	120,000 max. grain	Good		Sell		
1		MOX Control Panel W.L. Flemming - N.L. Spec		Good		Transfer or Sell		
1		Boiler Fan MOX Fulton 20 E - Dual fuel w/Blow Down Package & Chemical feed. S/N B 329152	20 HP	Good		Transfer or Sell		
12		Slag Pots Perth Amboy type	approx. wt. 1400#	Fair		Transfer		
2	15-16	90-ton kettles	N.L Dwg. CU-1426 90 ton	Good		Transfer or Sell		Pots only -damage settings
7	1-2-3 10-12-13 14	60-ton kettles	82"ID X 72"deep 1" wall-1-1/2"dish American Tank	Good		Transfer or Sell		Pots only - damage settings
1	4	45-ton kettle	82" ID X 41" deep 1" wall X 1-1/2 dish	Good		Transfer or Sell		Pots only - damage settings
3		Casting tables - 65# pigs	16 cavity/table	Poor		Transfer or Sell		
1		Casting table - 65# pigs	16 cavity/table spare	Poor		Transfer or Sell		
4		Casting table frames	65# pigs	Fair - require castings		Sell		

EQUIPMENT LIST

Qty.	No.	Description	Size or Capacity	Condition	Stationary or Movable	Recommended Disposition	Time Req'd.	Comments
1		Air Compressor - Sullair Model # 16-75 C S/N 25861 AGF	75 HP 110 psig	Good		Transfer		
1		Air Compressor - Sullair Model # 10-25 - S/N 23735 KGE	25 HP 125 psig	Good		Transfer		
3		Mixers for 60-Ton Pots N.L. Design	25 HP 60 ton rpm approx. 182	Fair		Transfer		
1		Mixer for 45-Ton Pot N.L. Design	10 HP rpm approx. 182 - 45 ton	Fair		Transfer		
1		Mixer for 90-Ton Pot N.L. Design	35 HP rpm approx. 186 - 90 ton	Fair		Transfer		
4		Casting Pumps N.L. Design	3 HP 1200 rpm	Fair		Transfer		
7		Transfer Pumps N.L. Design	5 HP 1200 rpm	Fair		Transfer		
1		Metallurgical Baghouse 9 cell brick baghouse - N.L. design - approx. 26,000 sq.ft. of cloth		Fair		Abandon		
1		Intake Fan Chicago Blower - Size 41 S/N 68414-1	150 HP 33,000 CFM	Good		Transfer or Sell		

EQUIPMENT LIST

Qty.	No.	Description	Size or Capacity	Condition	Stationary or Movable	Recommended Disposition	Time Req'd.	Comments
1		Exhaust Fan Chicago Blower - Size 41 S/N 6841402	150 HP 44,000 CFM	Good		Transfer or Sell		
1		Sanitary Baghouse 2 - 5 cell - Series 39 - No. 390	10,720 sq/ft cloth	Fair		Sell		
1		Exhaust Fan - Norblo - Double Entry - No. 80H5	100 HP drive			Transfer or Sell		
2		Screw conveyors - Falk Reg. #307JSC-24	5 HP drive			Transfer or Sell		
1	15-16	Hoist Electric Dresser	10 ton			Transfer or Sell		
1	1-2-3	Hoist - Electric American Chain & Cable Model W622A 12M	12,000# capacity 17 FPM	Good		Transfer or Sell		
1	10-12-13	Hoist - Electric Load Lifter	10,000# capacity	Fair		Sell		
1	Maint.	Hoist - Electric - Budget	1 ton			Transfer or Sell		
1	4	Hoist - Electric - Shaw Box	8000# capacity	Poor		Sell		
1	top of furnace	Hoist - Electric Bridge Crane - Dresser	2-1/2 ton	Fair		Sell		
1		Bridge Crane - CKM	1 ton	Poor - Unused W.M. Bldg.		Sell or Abandon		
1		Truck Scale - Fairbanks-Morse Dial printer & lever system	34' platform	Good 60,000 lb.		Sell		

EQUIPMENT LIST

Qty.	No.	Description	Size or Capacity	Condition	Stationary or Movable	Recommended Disposition	Time Req'd.	Comments
1		Plant Scale - Fairbanks-Morse Dial	5'X6' platform 10,000#	Fair		Sell		
1		Shipping Scale - Fairbanks-Morse Type S-4-10 w/printer	9 X 7 platform 10,000#	Good		Sell		
1		Reverb Furnace N.L. Design - 6'9 X 12'9 hearth	25 ton batch	Good		Damage & Abandon		
1	15-16	Combustion Blower - North American				Transfer or Sell		
1	10-12	Combustion Blower - North American - 2316-26-1-7.5	16 oz			Transfer or Sell		
1	13-14	Combustion Blower - North American				Transfer or Sell		
1	1-2-3	Combustion Blower - North American				Transfer or Sell		
1	4	Combustion Blower - North American				Transfer or Sell		
1	Reverb	Combustion Blower - North American				Transfer or Sell		
1	Maint.	Steam Jenny - Superpower 750 Jenny		Good		Transfer or Sell		
1	Maint.	Air Compressor - Curtis CU968A	3 HP			Transfer or Sell		
1	Maint.	Arc Welder - 200 Amp Hobart	200 amp.	Fair		Transfer or Sell		
1		Oil Pump System - Viking Model No. G G195D	450 GPH @ 100 psi ea	Good		Transfer or Sell		
10		North American Burners -6422-7-A Dual Fuel		Good		Transfer or Sell		Could be used at Granite City

EQUIPMENT LIST

y.	No.	Description	Size or Capacity	Condition	Stationary or Movable	Recommended Disposition	Time Req'd.	Comments
		North American Burners - 6422-5 Dual Fuel		Good		Transfer		
		Central Vacuum System - Lamson Blower - 515 Multistage	20 HP 625 CFM @ 8.5" Hg	Poor		Sell		

EQUIPMENT LIST

Qty.	Equip. No.	Manufacturer	Model	Serial #	Capacity	Year	Lease/ Own	Condition	Comments	Recommended Disposition
1	27	Clark - Rotating Fork for pots	C500-50	355-211-2572	5000#		Leased	Good		Transfer
1	33	Yale - Fork	L51C-030	AK 145306	3000#	6/68		Fair		Sell
1	38	Yale - Fork	L83P050	P184768	5000#	11/70		Fair		Transfer or Sell
1	42	Clark - Fork	CF 25	488-597	2500#	1964		Poor		Sell
1	44	Clark - Fork	C500-30	355-1280-2548	5000#	12/72	Leased	Good		Transfer
1	45	Hough Payloader	H25B	3340203007928	3500#	10/73		Good		Transfer
1	47	Hyster - Fork	5-40-C	C2D-9685P	7000#			Poor		Sell
1	51	Hough - Payloader	H-30	34003040005162X	20 cu.ft.	11/73		Poor		Sell
1	52	Clark - Fork	C500Y55	Y355-134-8-3225	5500#	1975	Leased	Good		Transfer
1	53	Clark - Fork	C-500.55	C55-3373130	4000#	1975	Leased	Good		Transfer
1	54	Waldon - Scoop	6000	10725	1-1/4 yd.	1976		Good		Transfer
1	55	Hough - Payloader	H-25-B	334020300086Y6	20 cu.ft.	6/77		Good		Transfer
1	56	Hough - Payloader	H-25-B	33402030008590	20 cu.ft.	6/77		Good		Transfer
1	58	Clark - Fork	C500-35	355-8-4047-1078	3500#	10/78	Leased	Excellent		Transfer
1	59	Clark - Fork	C-500-50	355-183-4047-1078	5000#	10/78	Leased	Excellent		Transfer
1	60	Clark - Rot.Clamp	C500-YS80	Y685-974130	6050#	11/78	Leased	Excellent		Transfer
1	61	Clark - Rot.Clamp	C500-YS80	Y685-984130	6050#	11/78	Leased	Excellent		Transfer
1	-	Sweeper - Power Tennant	93	921491		1974		Good		Transfer
1	-	Sweeper - Push Tennant	42	187747				Poor		Sell

EQUIPMENT LIST

Qty.	Equip. No.	Manufacturer	Model	Serial #	Capacity	Year	Lease/ Own	Condition	Comments	Recommended Disposition
1		International Tractor		457240G285233		1968		Poor		Sell
1		Dump Trailer	Steco-Semi	1145842	40,000#	1958		Poor		Sell
1		Dump Trailer Fruehauf	YRR5518	FW110029	40,000#	1956		Poor		Sell
1		Tractor	Mack NB 23C	U6155T1565				Good	Yard use	Transfer or Sell

EQUIPMENT LIST

Qty.	No.	Description	Size or Capacity	Condition	Stationary or Movable	Recommended Disposition	Time Req'd.	Comments
1		Top Temp. Recorder - Brown Inst. Model 152 X 139-5-W-7-11 S/N 774200	0-2000°F	Good		Transfer or Sell		
1		Baghouse Temp. Control - Brown Inst. - Model 142R13-PSH-14-K-1-11 S/N UO 16367600	0-300°F	Good		Transfer or Sell		
1		Baghouse - Sanitary Norblo #234 #45 Fan		Poor - Unused		Sell		
2		Recirculating Water Pump Deming - F16 4011 Size 3M - Type SF - 1750 RPM		Fair - 1 spare Fair - 1 service		Sell Sell		
1		AA-6 Atomic Absorption Spectrophotometer		Good		Transfer		
1		AA-3 Atomic Absorption Spectrophotometer updated to AA-5		Fair - not in use		Sell		
1		Air compressor		Good		Transfer		
14		Hollow cathode lamps for A.A.		Good		Transfer		
4		E.D.L. Lamps for A.A.		Good		Transfer		
1		E.D.L. Power Supply for A.A.		Good		Transfer		
1		Analytical Balance - Mettler		Good		Transfer		

EQUIPMENT LIST

Qty.	No.	Description	Size or Capacity	Condition	Stationary or Movable	Recommended Disposition	Time Req'd.	Comments
2		Ohaus Balance - 1 small, 1 large		Good		Transfer		
2		Bausch & Lomb Spectronic 20		Good		Transfer		
2		Magnetic Stirrers 1 Ceneo; 1 Corning		Good		Transfer		
1		Lab scales	200 lbs.	Fair		Transfer		
1		Vacuum Pump		Fair		Transfer		
1		Refrigerator - Small unit		Fair		Sell		
2		Ovens - Drying; 1 small; 1 large		Fair		Transfer or Sell		
2		Hi Volume Air Sampler - air quality		Fair		Transfer		
1		Calibration Unit - for Hi Volume		Good		Transfer		
4		MSA Pumps - Personal		Good		Transfer		
1		MSA Calibration Unit - for Personal		Good		Transfer		
1		Batam Pulverizer - Mickro		Good		Transfer		

EQUIPMENT LIST

Qty.	No.	Description	Size or Capacity	Condition	Stationary or Movable	Recommended Disposition	Time Req'd.	Comments
1		Pulverizer - Slag & Matte - Clear		Fair		Transfer or Sell		
1		Bell Grinder - Drosses		Fair		Transfer or Sell		

WM:iod 12/28/78

RUN DATE 07/17/79 NL INDUSTRIES INC. METAL DIVISION CLEVELAND MACHINERY & EQUIP FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT G

S-DPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION		DEPR BEGIN	EST. LIFE	DM	IT C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
000	4531	97917016-00	1	SANITARY BAGHOUSE	16480	1/68	20-00	5	0	33,130.04	18,034.30	138.04	828.24
000	4531	97917018-00	1	SANITAR AIR POLLUTION EQU	16667	1/69	20-00	5	0	91,693.00	57,307.94	382.05	2,292.32
000	4531	97917046-00	1	NORBLO 2 CELL AM BAGHOUSE		1/70	20-00	5	0	6,074.00	4,403.46	25.31	151.86
000	4531	97917078-00		SANITARY FAN IMPELLOR	MD688	1/77	20-00	5	4	3,504.19	438.02	14.60	87.60
				GL EXPEN ACCT TOTALS						134,401.23	80,183.72	560.00	3,360.02
				SUB-DEPT/PROD TOTALS						134,401.23	80,183.72	560.00	3,360.02
				DEPARTMENT TOTALS						134,401.23	80,183.72	560.00	3,360.02
000	4531	97917000-00	1	INLET OUTLET FANBOX	MD504	1/75	20-00	5	0	11,218.00	2,524.04	46.74	280.44
000	4531	97917038-00	1	BAGHOUSE 1		1/38	20-00	5	0	4,205.77	4,205.77		
000	4531	97917039-00	1	BAGHOUSE 2		1/41	20-00	5	0	3,452.42	3,452.42		
000	4531	97917040-00	1	BAGHOUSE 4		1/49	20-00	5	0	6,290.47	6,290.47		
000	4531	97917042-00	1	REPLACE CROSS FLUE	15290	1/66	20-00	5	0	7,815.72	6,995.09	32.56	195.40
000	4531	97917045-00	1	INSTALL LARGE FANS	17449	1/73	20-00	5	0	37,746.32	12,273.27	157.27	943.67
				GL EXPEN ACCT TOTALS						70,728.70	35,741.06	236.57	1,419.51
				SUB-DEPT/PROD TOTALS						70,728.70	35,741.06	236.57	1,419.51
				DEPARTMENT TOTALS						70,728.70	35,741.06	236.57	1,419.51
000	4531	97917001-00	3	70# CASTING TABLES STYL80	MD433	1/75	20-00	5	0	9,117.63	2,051.46	37.99	227.94
000	4531	97917002-00	3	CASTING TABLES		1/66	20-00	5	0	5,809.71	3,747.33	24.21	145.26
000	4531	97917005-00	2	CASTING TABLES 8CAVITY		1/71	20-00	5	0	4,048.53	2,295.55	16.87	101.22
000	4531	97917006-00	1	MIXER 60 TON POT STARTER		1/71	20-00	5	0	1,685.39	1,087.08	7.02	42.12
000	4531	97917009-00	1	BARBER COLEMAN RECORDER		1/67	20-00	5	0	710.75	430.02	2.96	17.76
000	4531	97917011-00	1	POT MIXING HOOD	MD419	1/74	20-00	5	0	4,059.99	1,135.50	16.91	101.51
000	4531	97917014-00	1	DUAL BURNER SYSTEM	17402	1/74	20-00	5	0	24,203.43	6,659.21	100.85	605.10
000	4531	97917020-00	1	TROLLEY HOIST POT 5PTR		1/50	20-00	5	0	991.37	991.37		
000	4531	97917036-00	1	RECORDING CONTROLLER	M-1	1/66	20-00	5	0	346.50	346.50		
000	4531	97917041-00	1	CIRCULAR CHART RECORDING	M	1/61	20-00	5	0	811.46	811.46		
000	4531	97917043-00	1	BAG COLLECTOR	M-3	1/67	20-00	5	0	675.16	543.49	2.81	16.87
000	4531	97917048-00	1	ADDITIONAL KETTLE REFININ	8101	1/53	20-00	5	0	9,076.58	9,076.58		
000	4531	97917049-00	1	POT 12 SETTING 60-TON	M	1/57	20-00	5	0	1,401.08	1,401.08		
000	4531	97917050-00	1	TROLLEY EXTENSION STACK	M	1/62	20-00	5	0	1,307.85	1,307.85		
000	4531	97917051-00	1	POT SETTING 13 60 TON	M	1/62	20-00	5	0	1,465.13	1,465.13		
000	4531	97917052-00	1	POT SETTING 1J 60 TON	M-11	1/64	15-00	5	0	1,415.03	1,415.03		
000	4531	97917053-00	1	POT DROSS SKIMMER FABRICA	165M2	1/65	15-00	5	0	1,142.16	1,142.16		
000	4531	97917054-00	1	WHEELCO INDICATOR CONTROL	165M8	1/67	20-00	5	0	298.89	240.57	1.24	7.47

RUN DATE 07/17/79 NL INDUSTRIES INC. METAL DIVISION CLEVELAND MACHINERY & EQUIP FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT G

EPT	S-DPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION		DEPR BEGIN	EST. LIFE	D M	I T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
440	000	4531	97917066-00	1	CRUSHER FOR SAMPLES	M	1/54	20-00	5	0	490.40	490.40		
440	000	4531	97917083-00		ANALYTICAL LAB UPDATE	M0803	1/78	20-00	5	7	19,792.03	1,484.41	82.46	494.81
					GL EXPEN ACCT TOTALS						20,282.43	1,974.81	82.46	494.81
					SUB-DEPT/PROD TOTALS						20,282.43	1,974.81	82.46	494.81
					DEPARTMENT TOTALS						20,282.43	1,974.81	82.46	494.81
450	000	4531	97917008-00	1	SEWER CLEANING MACHINE		1/65	20-00	5	0	560.50	560.50		
450	000	4531	97917061-00	1	ONE TON ELECTRIC HOIST	TR165M7	1/66	20-00	5	0	468.76	419.56	1.95	11.71
450	000	4531	97917068-00	1	PORTA-START	M-9	1/67	20-00	5	0	495.00	398.46	2.06	12.36
450	000	4531	97917069-00	1	ARC WELDER WITH METERS	M-3	1/69	20-00	5	0	640.00	400.01	2.66	16.01
450	000	4531	97917070-00	1	CURTISS AIR COMPRESSOR	11427	1/59	20-00	5	0	781.08	781.08		
					GL EXPEN ACCT TOTALS						2,945.34	2,559.61	6.67	40.08
					SUB-DEPT/PROD TOTALS						2,945.34	2,559.61	6.67	40.08
					DEPARTMENT TOTALS						2,945.34	2,559.61	6.67	40.08
621	000	6120	97917072-00	1	SCALE	17080	1/71	20-00	5	0	5,254.26	2,233.02	21.89	131.34
621	000	6120	97917073-00	4	DOCKBOARDS AND BUMPERS	17080	1/71	20-00	5	0	4,346.15	1,847.14	18.11	108.66
621	000	6120	97917074-00	1	ELECTRICAL WORK TRUCKDOCK	17080	1/71	20-00	5	0	2,228.49	953.11	9.28	55.71
					GL EXPEN ACCT TOTALS						11,828.90	5,033.27	49.28	295.71
					SUB-DEPT/PROD TOTALS						11,828.90	5,033.27	49.28	295.71
					DEPARTMENT TOTALS						11,828.90	5,033.27	49.28	295.71
					ASSET STATUS TOTALS						1,010,409.73	443,569.38	3,853.25	22,644.11

RUN DATE 07/17/79 NL INDUSTRIES INC. METAL DIVISION CLEVELAND FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT H TRANSPORTATION EQP

PT	S-DPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION		DEPR BEGIN	EST. LIFE	D M	I T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
00	000	4531	97927001-00	1	YALE LIFT TRUCK #3000	33	7/68	8-00	5	0	5,664.00	5,664.00		
00	000	4531	97927002-00	1	HOUGH PAYLOADER	37	8/70	8-00	5	0	10,917.00	10,917.00		
00	000	4531	97927003-00	1	FORK LIFT TRUCK AR8467	38	12/70	8-00	5	0	8,150.00	8,150.00		
00	000	4531	97927004-00	1	FORK LIFT TRUCK AR21487	39	10/71	8-00	5	0	7,476.00	7,266.00	70.00	420.00
00	000	4531	97927005-01		H25B PAYLOADER TR#55	MD746	9/77	6-00	5	6	18,156.70	5,547.90	252.17	1,513.07
00	000	4531	97927007-00	1	LIFT TRUCK 2500 CAPACITY	PITTS	6/72	8-00	5	0	6,120.00	6,120.00		
00	000	4531	97927008-01		H25B PAYLOADER TR#56	MD766	9/77	6-00	5	6	18,080.80	5,524.68	251.12	1,506.72
00	000	4531	97927009-00		WALDON FRONTEND LOADER	50	9/74	8-00	5	0	9,537.00	5,793.58	99.34	596.06
00	000	4531	97927010-00	1	HOUGH PAYLOADER	AR875544	2/74	8-00	5	0	18,951.90	12,867.36	197.41	1,184.50
00	000	4531	97927011-00	1	HOUGH PAYLOADER	45	11/73	8-00	5	0	1.00	.58	.01	.06
00	000	4531	97927012-00	1	PEWER SWEEPER	93	2/74	8-00	5	0	9,662.00	6,596.88	100.64	603.88
00	000	4531	97927014-00	1	1958TRACTOR DUMP TRAILER		6/70	8-00	5	0	3,696.00	3,696.00		
00	000	4531	97927015-00		WALDON LOADER PAYLOADER	MD645	1/77	8-00	5	4	26,191.36	8,184.81	272.82	1,636.97
					GL EXPEN ACCT TOTALS						142,603.76	86,328.79	1,243.51	7,461.26
					SUB-DEPT/PROD TOTALS						142,603.76	86,328.79	1,243.51	7,461.26
					DEPARTMENT TOTALS						142,603.76	86,328.79	1,243.51	7,461.26
					ASSET STATUS TOTALS						142,603.76	86,328.79	1,243.51	7,461.26

FIXED ASSET BOOK LEDGER

NL INDUSTRIES INC.
METAL DIVISION
CLEVELAND
FURNITURE & FIXTURES

RUN DATE 07/17/79 FOR ENDING 6/30/79 PAGE 190

/N 09 LOCA 79 ASST STAT I

TEXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	DM	IT C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
4531	97907006-00		VAN DORN INFRA-RED HEATER	1/72	10-00	5	0	173.39	130.04	1.44	8.67
4531	97907072-00	1	CRUSHER	1/58	10-00	5	0	391.21	391.21		
			GL EXPEN ACCT TOTALS					564.60	521.25	1.44	8.67
			SUB-DEPT/PROD TOTALS					564.60	521.25	1.44	8.67
			DEPARTMENT TOTALS					564.60	521.25	1.44	8.67
4531	97907000-00	4	INFRA RED HEATERS	1/68	10-00	5	0	1,059.61	1,059.61		
4531	97907001-00	1	SHOWER-LOCKER ROOM 2ND FL	1/65	10-00	5	0	4,693.29	4,693.29		
4531	97907002-00	1	WHITE REFRIGERATOR 2 DOOR	1/68	10-00	5	0	199.95	199.95		
4531	97907003-00	1	WATER COOLER FOOT PEDAL	1/69	10-00	5	0	165.00	165.00		
4531	97907004-00	1	PORTABLE AUTOMATIC WASHER	1/69	10-00	5	0	152.95	152.95		
4531	97907007-00	1	DRAFTING MACHINE 30 BOARD	1/67	10-00	5	0	138.00	138.00		
4531	97907008-00	2	60X30 GRAY STEEL DESKS	1/67	10-00	5	0	328.50	328.50		
4531	97907009-00	1	AIR CONDITIONER 14000 BTU	1/71	10-00	5	0	235.08	199.84	1.96	11.76
4531	97907011-00	1	CONTENTS OF WELFARE BLDG	1/65	10-00	5	0	156.82	156.82		
4531	97907012-00	1	AIR CONDITIONER 15000 BTU	1/72	10-00	5	0	239.00	179.24	1.99	11.94
4531	97907013-00	1	AMANA RR MICROWAVE OVEN	1/73	10-00	5	0	344.00	223.61	2.86	17.21
4531	97907014-00	1	QUAKER HEATER SHIPPING RM	1/67	10-00	5	0	152.15	152.15		
4531	97907017-00	1	AIR CONDITIONER 11000 BTU	1/72	10-00	5	0	199.00	149.26	1.66	9.96
4531	97907023-00	1	AIR CONDITIONER 11000 BTU	1/67	10-00	5	0	204.95	204.95		
4531	97907024-00	1	AIR CONDITIONER 6000 BTU	1/72	10-00	5	0	148.00	110.99	1.23	7.39
4531	97907025-00	1	AIR CONDITIONER 11000 BTU	1/72	10-00	5	0	199.00	149.26	1.66	9.96
4531	97907026-00	1	WATER COOLER	1/71	10-00	5	0	172.34	146.46	1.43	8.62
4531	97907027-00	1	USED ART TYPEWRITER DESK	1/65	10-00	5	0	119.95	119.95		
4531	97907028-00	1	GREY TABLE TOP DESK FILE	1/65	10-00	5	0	98.55	98.55		
4531	97907029-00	1	GRAY 36X60 PEDESTAL DESK	1/66	10-00	5	0	228.90	228.90		
4531	97907030-00	2	AIR CONDITIONERS 11000BTU	1/66	10-00	5	0	378.00	378.00		
4531	97907031-00	1	SERIES E ACCOUNTING MACH	1/66	10-00	5	0	7,920.00	7,920.00		
4531	97907032-00	1	GRAYTON PORTABLE TRAY	1/66	10-00	5	0	110.25	110.25		
4531	97907034-00	2	CONTROL UNITS FOR F-1503	1/66	10-00	5	0	400.00	400.00		
4531	97907035-00	2	DAWN GREY 2 DRAWER FILES	1/67	10-00	5	0	117.80	117.80		
4531	97907036-00	1	5 DRAWER LEGAL FILE	1/69	10-00	5	0	125.80	125.80		
4531	97907037-00	1	ELECTRIC TYPEWRITER	1/69	10-00	5	0	477.00	477.00		
4531	97907038-00	1	PRINTING CALCULATOR	1/70	10-00	5	0	625.00	593.76	5.21	31.26
4531	97907039-00	1	WALNUT DESK AND CREDENZA	1/70	10-00	5	0	460.80	437.76	3.84	23.04
4531	97907040-00	2	UPHOLST GOLD GUEST CHAIRS	1/70	10-00	5	0	139.20	132.24	1.16	6.96

NL INDUSTRIES INC.
METAL DIVISION
CLEVELAND
FURNITURE & FIXTURES

RUN DATE 07/17/79 FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT I

PT	S-DPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	DM	IT C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
00	000	4531	97907041-00	1	SETTEE ARMCHAIR COF TABLE	1/70	10-00	5	0	281.59	267.52	2.34	14.04
00	000	4531	97907042-00	1	UPH CHAIR GREEN FABRIC	1/70	10-00	5	0	110.40	104.88	.92	5.52
00	000	4531	97907043-00	2	UPH WALNUT ARMCHAIRS	1/70	10-00	5	0	224.00	212.81	1.86	11.21
00	000	4531	97907044-00	1	WALNUT DESK CREDEZNA FILE	1/70	10-00	5	0	654.10	621.39	5.45	32.70
00	000	4531	97907045-00	1	TELEVOICE WRITER TRANSCRI	1/71	10-00	5	0	675.00	573.75	5.62	33.75
00	000	4531	97907046-00	1	ELECTRONIC CALCULATOR	1/71	10-00	5	0	541.45	460.27	4.51	27.06
00	000	4531	97907047-00	1	SHARP ELECTRON CALCULATOR	1/71	10-00	5	0	408.83	347.52	3.40	20.45
00	000	4531	97907048-00	1	SECRETARIAL DESK CREDENZA	1/71	10-00	5	0	750.52	637.94	6.25	37.52
00	000	4531	97907049-00	1	SECRETARIAL DESK AND TOP	1/71	10-00	5	0	203.30	172.80	1.69	10.16
00	000	4531	97907050-00	1	AIR CONDITIONER 11000 BTU	1/72	10-00	5	0	219.00	164.25	1.82	10.95
00	000	4531	97907051-00	1	GRAY 30X 60 DESK	1/72	10-00	5	0	125.00	93.74	1.04	6.24
00	000	4531	97907052-00	1	ELECTRONIC CALCULATOR	1/72	10-00	5	0	495.00	371.25	4.12	24.75
00	000	4531	97907053-00	3	METAL STAND EXECUTI DESKS	1/72	10-00	5	0	490.05	367.59	4.08	24.50
00	000	4531	97907054-00	1	ELECTRONIC CALCULATOR	1/72	10-00	5	0	495.00	371.25	4.12	24.75
00	000	4531	97907055-00	1	AIR CONDITIONER 11000 BTU	1/72	10-00	5	0	199.00	149.26	1.66	9.96
00	000	4531	97907056-00	1	ROYAL ELECTRIC TYPEWRITER	1/72	10-00	5	0	368.00	276.01	3.06	18.41
00	000	4531	97907057-00	1	LEGAL & LETTER FILE CHAIR	1/72	10-00	5	0	272.45	204.22	2.27	13.62
00	000	4531	97907058-00	1	DICTATING TRANSCRIBINGMAC	1/72	10-00	5	0	800.00	600.01	6.66	40.01
00	000	4531	97907059-00	1	VICTOR ELECTRONIC CALCULA	1/72	10-00	5	0	355.50	266.61	2.96	17.76
00	000	4531	97907060-00	1	DESK TRANS FROM CINNCINAT	1/65	10-00	5	0	265.00	265.00		
00	000	4531	97907061-00	1	CREDENZA TRANS FROM CINNC	1/65	10-00	5	0	293.50	293.50		
00	000	4531	97907062-00	1	CHAIR TRANS FROM CINNCINN	1/65	10-00	5	0	150.00	150.00		
00	000	4531	97907063-00	1	TYPEWRITER TRANS FROM CIN	1/72	10-00	5	0	520.00	389.99	4.33	25.99
00	000	4531	97907064-00	1	ROYAL ELECTRIC TYPEWRITER	1/73	10-00	5	0	429.50	286.78	3.58	21.48
00	000	4531	97907065-00	1	PITTSBURG LAB EQUIPMENT	1/68	10-00	5	0	8,518.64	8,518.64		
00	000	4531	97907066-00	1	AIR CONDITIONER 15000 BTU	1/73	5-00	5	0	239.00	239.00		
00	000	4531	97907067-00	1	ELECTRONIC CALCULATOR	1/74	10-00	5	0	103.98	60.79	.86	5.21
00	000	4531	97907068-00	1	IBM SELECTRIC TYPEWRITER	1/75	10-00	5	0	405.00	182.25	3.37	20.25
00	000	4531	97907069-00	1	IBM SELECTRIC TYPEWRITER	1/75	10-00	5	0	464.00	208.81	3.86	23.21
00	000	4531	97907070-00	1	OFFICE FURNITURE FROM PIT	1/73	10-00	5	0	1,990.09	1,769.63	16.58	99.50
00	000	4531	97907071-00	1	FILM PROJECTOR & LA REEL	1/75	10-00	5	0	741.00	333.45	6.17	37.05
00	000	4531	97907073-00		DESKS & CHAIRS	1/66	10-00	5	0	1,088.39	489.78	9.07	54.42
					GL EXPEN ACCT TOTALS					42,865.18	39,000.58	134.65	808.57
					SUB-DEPT/PROD TOTALS					42,865.18	39,000.58	134.65	808.57
					DEPARTMENT TOTALS					42,865.18	39,000.58	134.65	808.57

NL INDUSTRIES INC.
METAL DIVISION
CLEVELAND
FURNITURE & FIXTURES

RUN DATE 07/17/79 FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT I

S-DPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	D M	T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
000	4531	97907010-00	1	WET LAB	1/65	10-00	5	0	1,275.00	1,275.00		
000	4531	97907015-00	1	3 GAL WATER STILL W LAB	1/66	10-00	5	0	316.23	316.23		
000	4531	97907016-00	1	LAB DRYING OVEN REL EQUIP	1/69	10-00	5	0	1,121.73	1,121.73		
000	4531	97907018-00	1	CENTRIFUGE NC 9774-10	1/67	10-00	5	0	175.00	175.00		
000	4531	97907019-00	1	AA SPECTRO BURNER LAMP	1/67	10-00	5	0	6,044.62	6,044.62		
000	4531	97907020-00	1	BUMER NEBULIZER ASSYEQUIP	1/71	10-00	5	0	1,710.17	1,453.63	14.25	85.50
000	4531	97907021-00	1	AMPLIFIER S/N 473	1/71	10-00	5	0	1,321.40	1,123.18	11.01	66.06
000	4531	97907022-00	1	TECHTRON SUB CU AG LAMPS	1/72	10-00	5	0	1,117.95	838.38	9.31	55.91
				GL EXPEN ACCT TOTALS					13,082.10	12,347.77	34.57	207.47
				SUB-DEPT/PROD TOTALS					13,082.10	12,347.77	34.57	207.47
				DEPARTMENT TOTALS					13,082.10	12,347.77	34.57	207.47
000	4531	97907005-00	1	WATER COOLER	1/70	10-00	5	0	169.40	160.92	1.41	8.46
				GL EXPEN ACCT TOTALS					169.40	160.92	1.41	8.46
				SUB-DEPT/PROD TOTALS					169.40	160.92	1.41	8.46
				DEPARTMENT TOTALS					169.40	160.92	1.41	8.46
	7600	97907033-00	1	POSTURE DESK CHAIR GREEN	1/66	10-00	5	0	252.00	252.00		
				GL EXPEN ACCT TOTALS					252.00	252.00		
				SUB-DEPT/PROD TOTALS					252.00	252.00		
				DEPARTMENT TOTALS					252.00	252.00		
				ASSET STATUS TOTALS					56,933.28	52,282.52	172.07	1,033.17
				LOCATION TOTALS					1,949,763.83	958,170.02	6,916.91	41,027.86

NL INDUSTRIES INC.
METAL DIVISION
CLEVELAND
LAND

RUN DATE 07/17/79 FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT A

DEPT	S-DPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	DM	IT C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
400	000	5143	97957000-00	1	2734SQFT PORTICNS PARCELS17255	0/00*	0-00	0	0	3,356.87			
400	000	5143	97957001-00		CITY PROPERTY 15437	0/00*	0-00	0	0	30,000.00			
400	000	5143	97957002-00		RECORDS IN NEW YORK OFFICE	0/00*	0-00	0	0	90,623.05			
					GL EXPEN ACCT TOTALS					123,979.92			
					SUB-DEPT/PROD TOTALS					123,979.92			
					DEPARTMENT TOTALS					123,979.92			
					ASSET STATUS TOTALS					123,979.92			

NL INDUSTRIES INC.
METAL DIVISION
CLEVELAND
LAND IMPROVEMENTS

RUN DATE 07/17/79 FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT B

-DPT PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	D M	I T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
000	4531	97957900	1	5800 SQ FT PAVING300FENCE14184	1/64	20-00	5	0	6,349.97	4,941.40	26.46	158.76
000	4531	97957901	1	6400 SQ FT REINF CONCRETE16479	1/68	20-00	5	0	5,997.87	3,448.80	24.99	149.94
000	4531	97957902	1	1681 SQ FT CONCRETE LOT M-4	1/69	20-00	5	0	1,600.00	840.01	6.66	40.01
000	4531	97957903	1	8 INCH CONCRETE NO OF SAWM-7	1/69	20-00	5	0	2,500.00	1,312.51	10.41	62.51
000	4531	97957904	1	1000 SQ FT 6INCH CONCRETEM-10	1/69	20-00	5	0	1,000.00	525.01	4.16	25.01
000	4531	97957905	1	500 SQ FT CONCRETE ATPOT5M-13	1/70	20-00	5	0	1,029.00	488.79	4.29	25.74
000	4531	97957906	1	NEW BINS SOUTH YARD M-15	1/70	20-00	5	0	953.03	452.70	3.97	23.82
000	4531	97957907	1	500 SQ FT ASPHALT M-9	1/70	20-00	5	0	500.00	237.49	2.08	12.49
000	4531	97957908	1	CONCRETE APRON FRONTDRIVEM-7	1/70	20-00	5	0	4,550.00	2,161.26	18.96	113.76
000	4531	97957909	1	DROSS STORAGE BINS M-8	1/70	20-00	5	0	1,179.68	560.39	4.91	29.49
000	4531	97957910	1	FENCING FOR PARKING LOT M-3	1/70	20-00	5	0	530.00	251.76	2.21	13.26
000	4531	97957911	1	73'X50' CONCRETE SW YARD M-5	1/70	20-00	5	0	3,415.00	1,451.38	14.23	85.38
000	4531	97957912	1	CONCRETE MIDD PARKING LOT	1/71	20-00	5	0	4,180.00	1,776.51	17.41	104.51
000	4531	97957913	1	PAVING DRIVE AT DOCK 17080	1/71	20-00	5	0	645.00	274.14	2.69	16.14
000	4531	97957914	1	3796 SQ FT CONCRETE	1/71	20-00	5	0	4,133.00	1,756.52	17.22	103.32
000	4531	97957915	1	3590 SQ FT CONCRETE M-7	1/72	20-00	5	0	3,917.50	1,466.95	16.32	97.93
				GL EXPEN ACCT TOTALS					42,480.05	21,945.62	176.97	1,062.07
				SUB-DEPT/PROD TOTALS					42,480.05	21,945.62	176.97	1,062.07
				DEPARTMENT TOTALS					42,480.05	21,945.62	176.97	1,062.07
				ASSET STATUS TOTALS					42,480.05	21,945.62	176.97	1,062.07

NL INDUSTRIES INC.
METAL DIVISION
CLEVELAND
BUILDINGS

RUN DATE 07/17/79 FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT D

PT	S-DPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	DM	TC	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
20	000	4531	97937017-00	1	BATTERY DISMANTLING DEPT 11427	1/59	25-00	5	0	20,945.95	15,290.61	69.82	418.92
20	000	4531	97937018-00	1	ENCLOSE TRUCK DOCK & WARE17080	1/71	40-00	5	0	58,844.32	12,504.42	122.59	735.54
					GL EXPEN ACCT TOTALS					79,790.27	27,795.03	192.41	1,154.46
					SUB-DEPT/PROD TOTALS					79,790.27	27,795.03	192.41	1,154.46
					DEPARTMENT TOTALS					79,790.27	27,795.03	192.41	1,154.46
40	000	4531	97937005-00	1	BLAST BUILDINGS	1/38	40-00	5	0	15,615.79	15,615.79		
					GL EXPEN ACCT TOTALS					15,615.79	15,615.79		
					SUB-DEPT/PROD TOTALS					15,615.79	15,615.79		
					DEPARTMENT TOTALS					15,615.79	15,615.79		
43	000	4531	97937006-00	1	REVERB BUILDING	1/35	40-00	5	0	875.00	875.00		
					GL EXPEN ACCT TOTALS					875.00	875.00		
					SUB-DEPT/PROD TOTALS					875.00	875.00		
					DEPARTMENT TOTALS					875.00	875.00		
49	000	4531	97937007-00	1	BAGHOUSE BUILDING	1/50	25-00	5	0	32,882.24	32,882.24		
					GL EXPEN ACCT TOTALS					32,882.24	32,882.24		
					SUB-DEPT/PROD TOTALS					32,882.24	32,882.24		
					DEPARTMENT TOTALS					32,882.24	32,882.24		
80	000	4531	97937008-00	1	REFINING & CASTING BLDG	1/53	25-00	5	0	9,508.08	9,508.08		
					GL EXPEN ACCT TOTALS					9,508.08	9,508.08		
					SUB-DEPT/PROD TOTALS					9,508.08	9,508.08		
					DEPARTMENT TOTALS					9,508.08	9,508.08		
00	000	4531	97937000-00	1	ADMINISTRATIVEOFFICE BLDG	1/55	40-00	5	0	41,179.54	29,804.18	85.79	514.74
00	000	4531	97937001-00	1	GENERAL BUILDINGS	1/54	25-00	5	0	1,409.20	1,409.20		
00	000	4531	97937002-00	1	PLANT CONTROL OFFICE 9348	1/55	40-00	5	0	6,995.11	4,284.46	14.57	87.43
00	000	4531	97937003-00	1	ROUNDHOUSE PORTION 13106	1/63	15-00	5	0	18,647.88	18,647.88		
00	000	4531	97937004-00	1	51/2 BAYS OF ROUNDHOUSE 17316	1/73	20-00	5	0	21,230.00	6,908.76	88.46	530.76
00	000	4531	97937009-00	1	WHITE METAL BUILDING	1/45	25-00	5	0	4,191.12	4,191.12		
00	000	4531	97937010-00	1	PTR BUILDING	1/57	25-00	5	0	3,350.97	3,350.97		
00	000	4531	97937011-00	1	NO 2 RAILROAD SIDING	1/57	25-00	5	0	22,937.02	18,462.47	76.45	458.75
00	000	4531	97937016-00	1	WELFARE BUILDING	1/49	40-00	5	0	47,123.03	35,931.43	98.17	589.03
00	000	4531	97937019-00	1	PORTA-OFFICE MIXED METAL	1/71	10-00	5	0	2,576.50	2,190.02	21.47	128.82
					GL EXPEN ACCT TOTALS					169,640.37	125,180.49	384.91	2,309.53
					SUB-DEPT/PROD TOTALS					169,640.37	125,180.49	384.91	2,309.53
					DEPARTMENT TOTALS					169,640.37	125,180.49	384.91	2,309.53

DEPT	S-DPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	D M	I T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
440	000	4531	97937013-00	1	LABORATORY BUILDING	1/44	40-00	5	0	2,530.62	2,283.87	5.27	31.62
440	000	4531	97937014-00	1	LAB EXPANSION	1/56	40-00	5	0	7,777.33	4,569.22	16.20	97.20
					GL EXPEN ACCT TOTALS					10,307.95	6,853.09	21.47	128.82
					SUB-DEPT/PROD TOTALS					10,307.95	6,853.09	21.47	128.82
					DEPARTMENT TOTALS					10,307.95	6,853.09	21.47	128.82
621	000	6120	97937012-00	1	SHIPPING & WAREHOUSE BLDG	1/42	25-00	5	0	193.00	193.00		
621	000	6120	97937015-00	1	MAINTENANCE BUILDING 6051	1/49	40-00	5	0	8,832.20	5,243.49	18.40	110.40
					GL EXPEN ACCT TOTALS					9,025.20	5,436.49	18.40	110.40
					SUB-DEPT/PROD TOTALS					9,025.20	5,436.49	18.40	110.40
					DEPARTMENT TOTALS					9,025.20	5,436.49	18.40	110.40
					ASSET STATUS TOTALS					327,644.90	224,146.21	617.19	3,703.21

RUN DATE 07/17/79 NL INDUSTRIES INC. METAL DIVISION CLEVELAND FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT E BUILDING IMPROVEMENT

DEPT	S-DPT /PRO	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	D M	T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
120	000	4531	97947014-00	1	18X46 CANOPY BATTERY DEPTM	1/60	24-00	5	0	1,491.00	1,286.10	5.18	31.08
120	000	4531	97947020-00	1	BATTERY SAW BUILDING 16413	1/69	20-00	5	0	36,366.32	19,092.37	151.52	909.17
					GL EXPEN ACCT TOTALS					37,857.32	20,378.47	156.70	940.25
					SUB-DEPT/PROD TOTALS					37,857.32	20,378.47	156.70	940.25
					DEPARTMENT TOTALS					37,857.32	20,378.47	156.70	940.25
140	000	4531	97947027-00	1	REPLACE ROOF ON BLASTBLDGMD116	1/70	20-00	5	0	9,655.00	4,586.13	40.23	241.38
					GL EXPEN ACCT TOTALS					9,655.00	4,586.13	40.23	241.38
					SUB-DEPT/PROD TOTALS					9,655.00	4,586.13	40.23	241.38
					DEPARTMENT TOTALS					9,655.00	4,586.13	40.23	241.38
149	000	4531	97947002-00	1	RE-GUNITE REPAIR BAGHOUSEMD418	1/74	20-00	5	0	6,100.00	1,677.51	25.41	152.51
					GL EXPEN ACCT TOTALS					6,100.00	1,677.51	25.41	152.51
					SUB-DEPT/PROD TOTALS					6,100.00	1,677.51	25.41	152.51
					DEPARTMENT TOTALS					6,100.00	1,677.51	25.41	152.51
180	000	4531	97947028-00	1	REPLACE CONCRETE POTS 123MD114	1/70	20-00	5	0	2,793.00	1,326.69	11.64	69.84
					GL EXPEN ACCT TOTALS					2,793.00	1,326.69	11.64	69.84
					SUB-DEPT/PROD TOTALS					2,793.00	1,326.69	11.64	69.84
					DEPARTMENT TOTALS					2,793.00	1,326.69	11.64	69.84
400	000	4531	97947000-00	1	IMPROVE WELFARE FACILITY	1/74	20-00	5	0	17,987.00	4,953.08	74.94	449.68
400	000	4531	97947001-00	1	REZNOR MAKE-UP UNIT MD424	1/74	20-00	5	0	10,540.00	2,898.51	43.91	263.51
400	000	4531	97947003-00	1	AO SMITH BURKAY 300HEATERMD409	1/74	20-00	5	0	2,533.00	708.92	10.55	63.32
400	000	4531	97947004-00	1	OFFICE & WASHROOM EXPANSI11256	1/58	20-00	5	0	18,059.90	18,059.90		
400	000	4531	97947005-00	1	OFFICE COOLING TOWER INSTM	1/61	20-00	5	0	555.33	513.73	2.31	13.88
400	000	4531	97947008-00	1	BATTERY PLATE STORAGE BINMD194	1/71	20-00	5	0	4,745.80	2,016.96	19.77	118.64
400	000	4531	97947009-00	1	WATER & SEWER LINES 11255	1/58	20-00	5	0	8,090.58	8,090.58		
400	000	4531	97947010-00	2	MERCURY FLOODLAMPS M-8	1/66	20-00	5	0	510.00	344.25	2.12	12.75
400	000	4531	97947011-00	1	TRANSFORMER HOUSE CONCBLK11023	1/58	20-00	5	0	2,255.44	2,255.44		
400	000	4531	97947012-00	1	CHAIN LINK FENCE & GATE M5 M7	1/67	20-00	5	0	2,873.80	1,796.12	11.97	71.84
400	000	4531	97947015-00	1	SEWER LINR & CATCH BASIN M	1/61	20-00	5	0	1,259.71	1,165.29	5.25	31.50
400	000	4531	97947016-00	1	RECAPITALZED ITEMS	1/64	5-00	5	0	2,323.25	2,323.25		
400	000	4531	97947017-00	1	REBUILDING 200FT"A"TRACK M-4	1/65	20-00	5	0	2,275.00	1,649.38	9.48	56.88
400	000	4531	97947018-00	1	WHITE MTL BLDG ALTERATION	1/68	20-00	5	0	5,600.00	3,219.99	23.33	139.99
400	000	4531	97947019-00	1	SCALE HOUSE BLDG REPLACE M-8	1/69	20-00	5	0	2,360.15	1,239.04	9.83	59.00

RUN DATE 07/17/79 NL INDUSTRIES INC. METAL DIVISION CLEVELAND BUILDING IMPROVEMENT FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT E

S-DPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	D M	I T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
0	000 4531	97947023-00	1	22X30EXTENSION WHITE BLDGMD126	1/70	20-00	5	0	6,830.44	1,921.44	28.46	170.76
0	000 4531	97947024-00	1	696SQFT EXTENSION OFFICE MD87	1/70	20-00	5	0	20,083.83	9,539.82	83.68	502.08
0	000 4531	97947025-00	1	CONCRETE FLOOR SLABS WMB M19	1/70	20-00	5	0	1,700.00	807.49	7.08	42.49
0	000 4531	97947026-00	1	SEWER LINES CATCH BASINS M18	1/70	20-00	5	0	1,764.00	837.90	7.35	44.10
0	000 4531	97947030-00	1	FENCING WITH 8FT GATE B&OM-3	1/70	20-00	5	0	586.00	279.04	2.44	14.64
0	000 4531	97947031-00	1	INSTALL5THEROMPANEWINDOWSM-10	1/70	20-00	5	0	1,298.50	616.88	5.41	32.46
0	000 4531	97947032-00	1	CONCRETE CURBS INSTALLED M-20	1/70	20-00	5	0	1,125.00	534.39	4.69	28.14
0	000 4531	97947033-00	1	ADDITIONS TO WHITEMTLBLDGMD155	1/71	20-00	5	0	6,719.67	2,855.84	28.00	168.00
0	000 4531	97947035-00	1	ENCLOSE NORTH END SMELTERMD290	1/73	20-00	5	0	14,625.00	4,775.64	60.94	365.64
0	000 4531	97947036-00	1	EXTENSION OF DTR BLDG MD287	1/73	20-00	5	0	6,200.00	2,014.99	25.83	154.99
0	000 4531	97947037-00	1	RELOCATE STEAM WATER LINE17316	1/73	20-00	5	0	20,653.82	8,538.76	86.06	516.36
				GL EXPEN ACCT TOTALS					163,555.22	83,956.63	553.40	3,320.65
				SUB-DEPT/PROD TOTALS					163,555.22	83,956.63	553.40	3,320.65
				DEPARTMENT TOTALS					163,555.22	83,956.63	553.40	3,320.65
0	000 4531	97947013-00	1	EXTENSION TO SAMPLINGBLDG	1/60	20-00	5	0	1,493.50	1,456.19	6.22	37.32
0	000 4531	97947034-00	1	SAMPLE TEST ROOM B&O BLDGM-3	1/73	20-00	5	0	1,950.00	633.75	8.12	48.75
				GL EXPEN ACCT TOTALS					3,443.50	2,089.94	14.34	86.07
				SUB-DEPT/PROD TOTALS					3,443.50	2,089.94	14.34	86.07
				DEPARTMENT TOTALS					3,443.50	2,089.94	14.34	86.07
0	000 4531	97947006-00	1	20X15X8 CONC STORAGE ROOMMD195	1/71	20-00	5	0	2,653.55	1,127.79	11.05	66.35
0	000 4531	97947021-00	1	MAINTENANCE BLDG IMPROVE 16413	1/69	20-00	5	0	692.85	363.73	2.88	17.33
0	000 4531	97947022-00	1	ADDITIONAL B&O BLDG 16413	1/69	20-00	5	0	5,036.60	2,644.22	20.98	125.92
0	000 4531	97947029-00	1	CONCRETE FLOOR B&O BLDG M-2	1/70	20-00	5	0	4,150.00	1,971.24	17.29	103.74
				GL EXPEN ACCT TOTALS					12,533.00	6,106.98	52.20	313.34
				SUB-DEPT/PROD TOTALS					12,533.00	6,106.98	52.20	313.34
				DEPARTMENT TOTALS					12,533.00	6,106.98	52.20	313.34
1	000 6120	97947007-00	1	TRUCK LOADING DOCK 11286	1/58	20-00	5	0	9,775.15	9,775.15		
				GL EXPEN ACCT TOTALS					9,775.15	9,775.15		
				SUB-DEPT/PROD TOTALS					9,775.15	9,775.15		
				DEPARTMENT TOTALS					9,775.15	9,775.15		
				ASSET STATUS TOTALS					245,712.19	129,897.50	853.92	5,124.04

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NL INDUSTRIES
CAPITAL APPROPRIATION REQUEST

PROJECT TITLE: Repair & Rehabilitation of Battery Breaking Operation	PROJECT CLASSIFICATION	APPROPRIATION NUMBER
DIVISION/GROUP: Metals	[X] I-COST IMPROVEMENT	DIVISION / CORPORATE
PROFIT CENTER: North Central	[ ] II-PRODUCT IMPROVEMENT	[ ] Over-Expenditure [ ] Cancellation
LOCATION: Cleveland, Ohio	[ ] III-EXPANSION	BUDGET PROPOSAL NUMBER & AMOUNT: Budget # C-N-18-N Not budgeted; Not substituted
	[X] IV-NECESSITY	DATE: June 30, 1978

PROJECT DESCRIPTION

Rehabilitate two-story building, repair machinery and equipment, and install a low-speed vertical saw.

PROJECT EXPENDITURE

	AMOUNT REQUESTED
LAND	
BUILDINGS	$ 40,443.00
MACHINERY & EQUIPMENT	140,621.00
OTHER FIXED CAPITAL	
TOTAL FIXED CAPITAL	$181,064.00
PROPERTY EXPENSE	
TOTAL APPROPRIATION	$181,064.00
QUALITY OF ESTIMATE C	
ESCALATION ALLOW. 5 %	$ 7,243.00
CONTINGENCY ALLOW. 20 %	$ 28,970.00

PROJECT STATISTICS AND PROFITABILITY:

PROJECT START BY 9/15/78 COMPLETE BY 12/1/78
COMMITMENT EXPIRATION DATE 6/1/79
FIRST NORMAL YEAR OF OPERATIONS 1979
DIVISION ROA AT WAS %
PROFIT CENTER ROA AT WAS %

CASH PAYBACK PERIOD 1.9 YEARS

	BUDGET PROPOSAL	THIS APPROPRIATION
ROI THRU FIRST 5 YEARS	%	58.5%
ROI THRU CASH PAYBACK	%	%
DCF-RETURN	%	50+ %
NET PRESENT VALUE @ 10 % IS		$ 561,000

SUMMARY OF JUSTIFICATION: BENEFITS, ECONOMIC ASSUMPTIONS, AREAS OF UNCERTAINTY & ALTERNATIVES

Completion of this project will result in the following savings and advantages:

1. The ultimate shutdown of the Cleveland decasing operation would result in shipping all batteries received on a conversion basis from Cleveland to the Pedricktown plant and purchasing remaining battery plate requirements from outside sources. This would result in a loss of $115,000 net income per year.

2. Increase the number of batteries decased without proportionately increasing tota decasing cost, thus reducing decasing cost from $82.31/ton to $45.22/ton.

3. The purchase of battery plates and tops from an outside breaker was considered in lieu of completing this project. Outside battery decasing is not considered as a viable alternative because NL would be putting our competition (the breaker himself) into market control of material. Further, the outside breaker would be competing with our Purchasing Managers who are buying at dealer level. This competition would drive the cost of junk batteries up and ultimately result in higher cost for blast furnace feed material.

APPROPRIATION APPROVALS

PLANT	DIVISION	GROUP
	[signature] 7/7/78	
SAFETY APPROVAL [signature]	ENVIRONMENTAL APPROVAL [signature]	EXECUTIVE COMMITTEE

PROBLEM

Production plans for decasing batteries at the Cleveland plant require a substantial increase over present capabilities. Present capabilities average about 1400 batteries per day (single shift operation) while current requirements are about 4000 batteries per day. Current requirements cannot be reached by operating on a three-shift basis due to excessive machinery and equipment downtime. Machinery and equipment within the battery decasing facility is in an extremely run-down condition and requires almost constant maintenance. The building which houses the battery decasing operation has deteriorated to the extent that any further deterioration will affect structural integrity.

SOLUTION

To meet the above-mentioned requirements, it is proposed to rebuild the existing battery decasing building as well as machinery and equipment. The two existing high-blade speed saw lines will be replaced with a single low-blade speed unit which will provide comparable throughput with less maintenance. In this way, an average production of 2000 units per shift can be maintained.

Since building repairs and revisions can best be completed with equipment removed, it is proposed to remove most equipment items for rebuilding out of plant while building repairs and acid-proofing are completed. It is anticipated that performing machinery repairs in contractor's shop will expedite the most time-consuming part of this project.

ENGINEERING

See Scope of Work Items 1 through 54.

Bids for the work proposed in this request were solicited from many suppliers in the Cleveland area. General contractors were asked to bid on the complete job as well as the building portions of the request. The only bids received from general contractors covered six items of building repair. A machinery contractor was the only one willing to bid on all ten items of machinery work. Several contractors bid on electrical work or restricted portions of the requirements. A total of 23 sources were invited to bid on this project and eight responded with bids.

After reviewing all bids, Norris Bros., the machinery contractor, was invited to rebid the entire job as a general contractor. Norris Bros.' final bid did not include plastic piping required in the neutralizing area, revisions to the mist collection system, or repair parts required for the box and top choppers. Other items not included are itemized and estimated in the attachment showing total costs.

Although Norris Bros. are the only contractor considered for the major portion of this project, their selection was based on good reports from several contractors including one who indicated his willingness to be a subcontractor for them. In addition, at least two contractors who declined to even consider our requirements recommended Norris Bros. as a possible source. Finally, in dealing with estimators, take-off men, and owners the representative from Norris Bros. had more interest in the project and all its details than any other individual concerned.

It is estimated that it will require one week to dismantle equipment, three weeks to repair the building, four weeks to rebuild the equipment (which can proceed concurrently), two weeks to erect the equipment with an additional week to check operation - for a total project time of eight weeks. Poor weather might hamper the building repair, but should not delay the overall project time. In some cases, especially such as motors, repair or rebuild costs may exceed replacement cost. Such items will be reviewed as soon as the project is started so that lead time for replacement will be available. This determination has already been made for the Bauer-top machine which would cost $13,992.00 at 16 weeks delivery.

The total cost of this request is $181,064.00. A detailed breakdown of this cost is included in the attachments.

JUSTIFICATION

Completion of this project will result in the following savings and advantages:

1. The ultimate shutdown of the Cleveland decasing operation would result in shipping all batteries received on a conversion basis from Cleveland to the Pedricktown plant and purchasing remaining battery plate requirements from outside sources. This would result in a loss of $115,000 net income per year.

2. Increase the number of batteries decased without proportionately increasing labor and overhead costs, thus reducing decasing costs.

Battery Decasing Cost Comparison - Cleveland

1977	$000	Projected	$000
Labor & Fringes	47	Labor & Fringes	124
Maint. Mat'l. & Labor	37	Maint. Mat'l. & Labor	59
Supplies	18	Supplies	35
Purch. Services	11	Purch. Services	23
Occup.	57	Occup.	66
Supervision & Admin.	17	Supervision & Admin.	41
Material Handling	45	Material Handling	59
Total Cost	232	Total Cost	407

Present Cost	$232,000.00	
Tons metal generated 1977	2817 =	$82.31/ton
Projected cost - 2 8-hr. shifts	$407,000.00	
Projected tons metal generated	9000 =	$45.22/ton

3. Increase reliability of the battery decasing system, thus providing adequate in-plant generation of blast furnace feed material.

4. Excessive sound levels and the generation of acid mists emanating from the existing saw operation result in environmental problems which are extremely difficult and costly to rectify. The proposed low-speed saw will eliminate both the above-mentioned problems as well as improve working conditions within the battery decasing facility.

Purchasing battery plates and tops from an outside breaker was considered in lieu of completing this project. This alternative is not considered viable for the following reasons:

a. External breaking costs can change, since most contracts can be voided with a 30 days' written notice.

b. By increasing business with external breakers, we are essentially putting our competition (the breaker himself) into market control of material. By being guaranteed the volume base that only a company such as NL can provide, the external breaker accomplishes the following:

- Covers fixed cost.
- Enters local market for additional batteries.
- Competes against our purchasing managers who are also buying at dealer level and drives prices up.
- Can offer breaking service to our major competitors.

This request is based on a monthly capability of 90,000 batteries. This rate makes no provision for possible variation and availability or the difficulties that might be encountered with frozen batteries in extremely cold weather. It does include time for regular scheduled maintenance and clean-up of the operating area at the end of each day's operation. It must be emphasized that completion of the work described will only allow planned production rates for a very limited time if regular scheduled maintenance of this equipment is not properly performed. With proper maintenance, the work detailed in this request should result in two to three years of full production with minimum lost time for non-scheduled maintenance.

CAPITAL APPROPRIATION REQUEST
PROJECT SUMMARY

Location: Cleveland

Appropriation No.

Item No.	Item Description	Depr. Life	Account Class.	Project Expenditures		
				Property Expense	Capital Cost	Total
1.	Building Repair (Items 1 thru 6 per attachment 3)	40	17410		32,368.00	32,368.00
2.	Machine Repair (Items 11 thru 54 per attachment 3)	20	17600		81,633.00	81,633.00
3.	Equipment (Items A thru E per attachment 2)	20	17600		5,350.00	5,350.00
4.	Fabricate and install a stainless steel turnover guide including pans and piping	20	17600		3,500.00	3,500.00
5.	Fabricate and install a low speed vertical saw	20	17600		22,000.00	22,000.00
	Subtotal				144,851.00	144,851.00
	Escalation 5%				7,243.00	7,243.00
	Contingency 20%				28,970.00	28,970.00
	PROJECT TOTALS				181,064.00	181,064.0

CAPITAL APPROPRIATION REQUEST
PROJECT DETAIL

Location: Cleveland

Appropriation No.

Item No.	Description of Item	Depreciation Life	Account Class.	Project Expenditures		
				Material	Labor	Total
1.	Building Repair (Items 1 thru 6 per attachment 3)				32,368.00	32,368.00
2.	Machine Repair (Items 11 thru 54 per attachment 3)				81,633.00	81,633.00
3.	Equipment (Items A thru E per attachment 2)				5,350.00	5,350.00
4.	Fabricate and install a stainless steel turnover guide including pans and piping				3,500.00	3,500.00
5.	Fabricate and install a low-speed vertical saw				22,000.00	22,000.00
	Subtotal				144,851.00	144,851.00
	Escalation 5%				7,243.00	7,243.00
	Contingency 20%				28,970.00	28,970.00
	PROJECT TOTALS				181,064.00	181,064.00

ECONOMIC JUSTIFICATION

$ (000)

- [ ] WITH APPROPRIATION
- [ ] WITHOUT APPROPRIATION
- [x] INCREMENTAL

PROFIT CENTER: Cleveland PROJECT TITLE: Repair Battery Breaking DIV. APPROP. NO.

Furnace Feed Required ~~NET SALES~~: (Metal)	CURRENT YEAR 1978	2 1979	3 1980	4 1981	5 1982	5 YEAR TOTAL	6 1983	7 1984	8 1985	9 1986	10 1987	TOTAL TO PAYBACK
	CALENDAR YEARS											
1. Volume: Units tons		19300	19300	19300	19300		19300	19300	19300	19300	19300	
2. Avg. Realized Price $												
3. NET SALES												
COSTS, EXPENSES & INCOME:												
4. Direct Material		(504)	(504)	(504)	(504)		(504)	(504)	(504)	(504)	(504)	
5. Direct Labor												
6. Indirect Labor												
7. Supervision												
8. Fringe Benefits												
9. Utilities												
10. Maintenance												
11. Operating Cost		269	269	269	269		269	269	269	269	269	
12.												
13. Gross Profit Contribution		235	235	235	235		235	235	235	235	235	
14.												
15. Book Depreciation		6	8	8	8		8	8	8	8	8	
16. Cost Depletion												
17. Gross Trading Margin		229	227	227	227		227	227	227	227	227	
18. Distribution Expense												
19. Net Trading Margin												
20. Sales & Marketing Expense												
21. Research & Development												
22. Administration Expense												
23.												
24.												
25. Operating Profit												
26. Property Expense												
27. Start-up Costs												
28. (Gain) Loss on Disposals		2	–	–	–		–	–	–	–	–	
29.												
30. BOOK PRE-TAX PROFIT		227	227	227	227		227	227	227	227	227	
31. State Tax @ 2.4 %		5	5	5	5		5	5	5	5	5	
32. Sub-Total (30 – 31)		222	222	222	222		222	222	222	222	222	
33. Federal Tax @ 48.0%		107	107	107	107		107	107	107	107	107	
34. Tax Credits	11	3	–	–	–		–	–	–	–	–	
35. NET INCOME (32–33+34)	11	108	115	115	115	464	115	115	115	115	115	

NL INDUSTRIES

ECONOMIC JUSTIFICATION

$ (000)

PROFIT CENTER: Cleveland PROJECT TITLE: Repair Battery Breaking DIV. APPROP. NO.

	CALENDAR YEARS											
CASH GENERATION:	CURRENT YEAR 1978	2 1979	3 1980	4 1981	5 1982	5 YEAR TOTAL	6 1983	7 1984	8 1985	9 1986	10 1987	TOTAL TO PAYBACK
36. BOOK PRE-TAX PROFIT (30)	–	227	227	227	227		227	227	227	227	227	
37. Add Back Lines (15+16+28)		8	8	8	8		8	8	8	8	8	
38. Accelerated Depreciation	9	21	22	20	18		16	13	11	9	7	
39. Percentage Depletion												
40. Sub-Total (36+37−38−39)	(9)	214	213	215	217		219	222	224	226	228	
41. State Tax @ ____ %	–	5	5	5	5		5	5	5	5	5	
42. Sub-Total (40−41)	(9)	209	208	210	212		214	217	219	221	223	
43. Federal Tax @ ____ %	(4)	100	100	101	102		103	104	105	106	107	
44. Tax Credits	11	3										
45. Sub-Total (42−43+44)	6	112	108	109	110		111	113	114	115	116	
46. Accelerated Depreciation	9	21	22	20	18		16	13	11	9	7	
47. Percentage Depletion												
48. Disposal of Obsolete Assets												
49. Project Terminal Value											35	
50. CASH GENERATION (45+46+47+48+49)	15	133	130	129	128		127	126	125	124	158	
51. Cum. Cash Generation	15	148	278	407	535		662	788	913	1037	1195	
ANNUAL INVESTMENT REQUIREMENTS:												
52. Land												
53. Buildings	35	5										
54. Machinery & Equipment	106	35										
55. Other Fixed Capital												
56. Total Fixed Capital	141	40										
57.												
58. Accounts Receivable												
59. Inventories												
60. Other Assets												
61. ANNUAL INVESTMENT (56+57+58+59+60)	141	40										
62. Cumulative Gross Investment	141	181	181	181	181		181	181	181	181	181	
RETURN ON INVESTMENT:												
63. Cum. Book Value of Disposals												
64. Cum. Book Depreciation	–	6	14	22	30		38	46	54	62	70	
65. Net Assets (62−63−64)	141	175	167	159	151	793	143	135	127	119	111	
66. RETURN ON INVESTMENT	7.8	61.7	68.9	72.3	76.2	58.5	80.4	85.2	90.6	96.6	103.6	
67. NET CASH FLOW (50−61)	(126)	93	130	129	128	354	127	126	125	124	158	
68. CASH PAYBACK	.6	1.0	.3									

A – 133 a – 2

PROJECT TITLE: Cleveland - Repair & Rehabilitation of Battery Breaking Operation

DIV. APPROP. NO. _____

MEMO:

INTERPOLATION

1. A = NET PV @ R % = _____
2. B = NET PV @ (R + 5) % = _____
3. C = − B = _____
4. A + C = DELTA = _____
5. DCF-Return = R% + (5 x A ÷ DELTA)
   = ____ + (5 x ____ ÷ _____)

DCF-Return = 50+ %

Study Year	Cal. Year	Net Cash (Outflow) Inflow	5%		10%		15%		20%		25%		30%		35%		40%		45%		50%	
1	1978	(126)	.976		.953	(120)	.933		.913		.894		.877		.861	(108)	.845		.830		.816	(103)
2	1979	93	.929		.867	81	.811		.761		.716		.675		.638	59	.604		.573		.544	51
3	1980	130	.885		.788	102	.705		.634		.572		.519		.472	61	.431		.395		.363	47
4	1981	129	.843		.716	92	.613		.528		.458		.399		.350	45	.308		.272		.242	31
5	1982	128	.803		.651	83	.533		.440		.366		.307		.259	33	.220		.188		.161	21
6	1983	127	.765		.592	75	.464		.367		.293		.236		.192	24	.157		.130		.108	14
7	1984	126	.728		.538	68	.403		.306		.234		.182		.142	18	.112		.089		.072	9
8	1985	125	.694		.489	61	.351		.255		.188		.140		.105	13	.080		.062		.048	6
9	1986	124	.661		.445	55	.305		.212		.150		.108		.078	10	.057		.042		.032	4
10	1987	158	.629		.404	64	.265		.177		.120		.083		.058	9	.041		.029		.021	3
TOTAL (1 to 10)		1014				561										164						83
11	19		.599		.368		.231		.147		.096		.064		.043		.029		.020		.014	
12	19		.571		.334		.200		.123		.077		.049		.032		.021		.014		.009	
13	19		.543		.304		.174		.102		.061		.038		.023		.015		.010		.006	
14	19		.518		.276		.152		.085		.049		.029		.017		.011		.007		.004	
15	19		.493		.251		.132		.071		.039		.022		.013		.008		.005		.003	
16	19		.469		.228		.115		.059		.031		.017		.010		.005		.003		.002	
17	19		.447		.208		.100		.049		.025		.013		.007		.004		.002		.001	
18	19		.426		.189		.087		.041		.020		.010		.005		.003		.002		.001	
19	19		.406		.171		.075		.034		.016		.008		.004		.002		.001		.001	
20	19		.386		.156		.066		.029		.013		.006		.003		.001		.001		nil	
TOTAL (1 to 20)																						

A-160

Bids were solicited from the
following sources for work as indicated:

Farasey Steel Fabricators,	4000 Iron Ct., Cleveland; to rebuild all machinery. Bid: 2 crushers @ $15,000.00 each.
Schroll Construction Co.,	671 E. 200th St., Cleveland; to do all building repair. Bid: $47,272.00. Also to erect duplicate building on present foundation. Bid: $131,000.00.
West Shore Electric Co.,	13000 Athens Ave., Lakewood; to so electrical work, declined.
D. W. Rankin Inc.,	20800 Center Ridge Rd., Rocky River; General Contractor, declined.
Platt Construction Co.,	8905 Lake, Cleveland; General Contractors, Bid: building repair $31,163.00.
Reserve Electric Co.,	2090 E. 19th. St. Cleveland; to do electric work; Bid: $10,732.00.
Hoertz Electric Co.,	24453 Bagley, Cleveland; to do electric work; Bid: $5000.00.
Reed & Campbell Co.,	4868 Chaincraft, Garfield Hts.; to do plumbing, declined.
Steel Fabricators Co.,	Center & Spruce, Cleveland; to rebuild all machinery, declined.
The Thornton Co.,	6901 Morgan Ave. , Cleveland , General Contractor, declined.
Lippman Plumbing & Heating Co.,	1635 E. 55th Street, Cleveland; to do plumbing, Bid: Tank removal and replacement and plastic piping, $3596.00.
Carey Construction Co.,	5755 Granger Rd., Cleveland; General Contractor, declined.
John F. Cleary Construction Co.	1495 Warren Ave., Cleveland, General Contractor, Bid: Building repair $74,168.00.

Norris Bros., 2138 Davenport, Cleveland, Mechanical Contractors.
Initial Bid for four building items $21,790.00.
Repair but not removal of all machines $48,575.00.
Bid totalled $70,365.00.

The following contractors were not interested in considering our requirements.

Dunbar Construction Co.
Robert Jeske Co.
Larry Bernosky Const. Co.
Drake Construction Co.
J & L Contractors
R. A. Klingler
Nate Saddler
Siprak- Jekel Const. Inc.
United Masonry & Cement Construction Co.

REPAIR AND REHABILITATION OF
BATTERY BREAKING OPERATION

Attachment 2

SUMMARY SHEET OF ESTIMATED COSTS

Norris Bros., Quotation with exceptions 2/15/78	$103,165.00
Exceptions - estimated costs:	
Item 3, Grouting at 1st floor drain	850.00
Item 14, Separator parts, connecting duct and feeder, stainless steel	3,875.00
Item 15, Saw Line parts, stainless steel	1,400.00
Item 17, Crusher parts, stainless steel	3,500.00
Item 18, Screw conveyors drive and trough	1,125.00
Item 20, No additional costs indicated	-----
Items 42 & 43, Lipman Plumbing quotation	3,596.00
Item 51, Repair 35% of motors	1,190.00
Item 52, No additional costs indicated	-----
Item 53, Replace 35% of motor controls	2,800.00

The following items were not listed as work to be done and therefore were not quoted by Norris Bros.

A. Purchase 3 jacks for trailer leveling (1 on hand)	850.00
B. Battery roller conveyor (plastic rolls) for trailer unloading	1,200.00
C. Conveyor belt (tops) wipers	750.00
D. Rebuild three acid pumps, transfer service	1,500.00
E. Replacement ammonia line, tank to neutralizing area 1" xxs pipe, 5 ball valves, 2 solenoid valves	1,050.00
F. Fabrication of low-blade speed saw	18,000.00
SUBTOTAL	$144,851.00
5% Escalation	7,243.00
20% Contingency	28,970.00
TOTAL THIS REQUEST	$181,064.00

RUN DATE 07/17/79 NL INDUSTRIES INC. METAL DIVISION CLEVELAND MACHINERY & EQUIP FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT G

DEPT	S-OPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION	DEPR BEGIN	EST. LIFE	D M	I T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
120	000	4531	97917015-00	1	BATTERY SAW MIST COLLECTOMD347	1/74	20-00	5	0	4,906.84	1,355.87	20.44	122.67
120	000	4531	97917017-00	1	ANHYDROUS AMMONIA TANK 16187	1/68	20-00	5	0	11,487.72	8,213.75	47.86	287.20
120	000	4531	97917022-00	1	GRUENDLER HAMMERMILL 11364	1/59	20-00	5	0	3,464.29	3,464.29		
120	000	4531	97917024-00	1	BATTERY DECASING EQUIPMEN16413	1/69	20-00	5	0	17,651.41	11,032.14	73.55	441.30
120	000	4531	97917025-00	1	MISC BATTERY DECASING EQU16413	1/69	20-00	5	0	10,782.50	6,739.08	44.93	269.58
120	000	4531	97917026-00	1	TAX CLASSIFICATION BDE 16413	1/69	20-00	5	0	12,705.60	7,941.00	52.94	317.64
120	000	4531	97917027-00	1	SEPARATOR INSTALLATION M-1	1/69	20-00	5	0	5,170.01	3,231.24	21.54	129.24
120	000	4531	97917028-00	1	DUST COLLECTOR FOR TOP SE	1/70	20-00	5	0	1,329.22	697.84	5.54	33.24
120	000	4531	97917029-00	1	ACID NEUTRALIZATION EQUIP16413	1/69	20-00	5	0	4,246.59	2,654.02	17.69	106.16
120	000	4531	97917079-01		BATTERY TOP SEPERATOR	1/62	20-00	5	0	4,400.00	3,849.99	18.33	109.99
					GL EXPEN ACCT TOTALS					76,144.18	49,179.22	302.82	1,817.02
					SUB-DEPT/PROD TOTALS					76,144.18	49,179.22	302.82	1,817.02
					DEPARTMENT TOTALS					76,144.18	49,179.22	302.82	1,817.02
140	000	4531	97917010-00	1	ROOTS CONNERVILLE BLOWER	1/66	20-00	5	0	11,192.25	11,192.25		
140	000	4531	97917012-00	1	BLAST REVERB DRAFT CONTROMD349	1/74	20-00	5	0	5,554.75	1,674.58	23.14	138.87
140	000	4531	97917013-00	1	BLAST FURNACE OFFTAKE MD350	1/74	20-00	5	0	7,705.24	2,123.91	32.10	192.63
140	000	4531	97917023-00	1	CARRIER VIBRATIN CONVEYOR11427	1/59	20-00	5	0	5,743.15	5,743.15		
140	000	4531	97917030-00	1	BUILDING ADDITION BLAST F16667	1/69	20-00	5	0	66,755.26	41,722.03	278.14	1,668.89
140	000	4531	97917031-00	1	FURNACE ALLIED EQUIPMENT 16667	1/69	20-00	5	0	92,009.10	57,505.72	383.37	2,300.22
140	000	4531	97017032-00	1	ELECTRICAL BLAST FURNACE 16667	1/69	20-00	5	0	3,705.24	2,315.76	15.44	92.64
140	000	4531	97917033-00	1	OXYGEN ANALYZER M-6	1/72	20-00	5	0	1,780.00	667.51	7.41	44.51
140	000	4531	97917034-00	1	VIEWING SCALE FOREMANS OFM-3	1/71	20-00	5	0	1,854.30	788.13	7.72	46.37
140	000	4531	97917037-00	1	WATER JACKET THIMBLE FUMM	1/71	20-00	5	0	1,826.54	776.30	7.61	45.66
140	000	4531	97917063-00	1	MOLD RACK WITH 8 SUPPORTS	1/72	20-00	5	0	427.85	182.79	1.78	10.68
140	000	4531	97917071-00	1	DIAL SCALE	1/49	20-00	5	0	1,300.00	1,300.00		
140	000	4531	97917076-00	1	AIR WEIGHT PNEUMATIC FLOWM-3	1/64	15-00	5	0	754.48	754.48		
140	000	4531	97917081-00		OXYGEN INJECT BLAST FURN MD762	1/78	20-00	5	7	51,230.77	3,842.30	213.46	1,280.76
140	000	4531	97917081-01		OXYGEN INJECT BLAST FURN MD762	1/79	20-00	5	7	2,427.86	55.18	11.03	44.14
140	000	4531	97917084-00		LEAD ITEMS FOR FURN SHUT MD928	1/79	20-00	5	7	19,409.76	441.14	88.22	441.14
					GL EXPEN ACCT TOTALS					273,676.55	131,085.23	1,069.42	6,306.51
					SUB-DEPT/PROD TOTALS					273,676.55	131,085.23	1,069.42	6,306.51
					DEPARTMENT TOTALS					273,676.55	131,085.23	1,069.42	6,306.51
143	000	4531	97917035-00	1	REVERERATORY FURNACE	1/35	20-00	5	0	4,293.47	4,293.47		
					GL EXPEN ACCT TOTALS					4,293.47	4,293.47		
					SUB-DEPT/PROD TOTALS					4,293.47	4,293.47		
					DEPARTMENT TOTALS					4,293.47	4,293.47		

NL INDUSTRIES INC.
METAL DIVISION
CLEVELAND
MACHINERY & EQUIP

RUN DATE 07/17/79 FOR ENDING 6/30/79

DIVN 09 LOCA 79 ASST STAT G

DEPT	S-OPT /PRD	EXPN ACCT	ASSET NO.	QTY	DESCRIPTION		DEPR BEGIN	EST. LIFE	D M	T C	COST	RESERVE	PERIOD EXPENSE	YTD EXPENSE
180	000	4531	97917055-00	1	ARSENIC MIXER FEEDER		1/60	20-00	5	0	700.00	700.00		
180	000	4531	97917056-00	1	5 TON REPLACEMENT HOIST	165M6	1/64	15-00	5	0	2,321.26	2,321.26		
180	000	4531	97917057-00	1	SETTING #5 COVER DOOR	M-4	1/68	20-00	5	0	433.26	309.76	1.80	10.83
180	000	4531	97917058-00	2	90-TON KETTLES	16667	1/69	20-00	5	0	56,852.65	35,532.88	236.88	1,421.32
180	000	4531	97917060-00	1	PUMP MIXER CABLE STRIPPER		1/62	20-00	5	0	1,298.13	1,298.13		
180	000	4531	97917062-00	1	KETTLES SETTINGS		1/71	20-00	5	0	10,570.63	4,492.50	44.04	264.26
180	000	4531	97917065-00	1	POT 11 PILOT SYSTEM SAFETM-5		1/69	20-00	5	0	826.50	516.60	3.44	20.66
180	000	4531	97917067-00	1	HOIST AND SWIVEL		1/62	20-00	5	0	261.39	261.39		
180	000	4531	97917085-00		BURNER PIT VENTILATION	1030	1/79	20-00	5	7	1,383.05	31.44	6.28	31.44
					GL EXPEN ACCT TOTALS						143,213.51	81,611.33	503.30	3,013.76
					SUB-DEPT/PROD TOTALS						143,213.51	81,611.33	503.30	3,013.76
					DEPARTMENT TOTALS						143,213.51	81,611.33	503.30	3,013.76
400	000	4531	97917003-00	1	INGERSOLL RAND COMPRESSOR		1/73	20-00	5	0	3,142.50	1,026.08	13.09	78.56
400	000	4531	97917004-00	1	DEVILLBISS AIR COMPRESSOR		1/65	20-00	5	0	1,121.00	1,121.00		
400	000	4531	97917007-00	1	CENTRAL VACUUM SYSTEM		1/74	20-00	5	0	10,637.51	2,998.96	44.32	265.93
400	000	4531	97917019-00	1	POWER PANEL DISTRI SYSTEM	11023	1/58	20-00	5	0	6,787.09	6,787.09		
400	000	4531	97917021-00	1	CONVERT FUEL OIL NAT GAS	11103	1/58	20-00	5	0	14,446.54	14,446.54		
400	000	4531	97917044-00	1	AIR COMPRESSOR	M-6	1/70	20-00	5	0	2,246.74	1,179.55	9.36	56.16
400	000	4531	97917047-00	10	BUTTON MOLDS		1/48	20-00	5	0	785.00	785.00		
400	000	4531	97917059-00	1	8000 GAL TANK MARLOW PUMP	M-8	1/72	20-00	5	0	4,133.62	1,561.67	17.22	103.33
400	000	4531	97917064-00	1	ALUMINUM MELTING FURNACE	M-1	1/73	20-00	5	0	1,750.00	568.74	7.29	43.74
400	000	4531	97917077-00		INSTALL OIL TANK	MD586	1/76	20-00	5	0	688.75	120.54	2.87	17.22
400	000	4531	97917077-01		INSTALL OIL TANK BURNER	MD586	1/77	20-00	5	4	44,489.12	5,561.14	185.37	1,112.22
400	000	4531	97917080-00		OSHA COMPLIANCE PROJECTS	MD711	1/78	20-00	5	7	17,408.23	1,305.61	72.53	435.20
400	000	4531	97917082-00		FUEL OIL STG & COMB EQUIP	MD794	1/78	20-00	5	7	79,415.00	5,956.13	330.89	1,985.38
400	000	4531	97917082-01		FUEL OIL STG & COMB EQUIP	MD794	1/79	20-00	5	7	79,153.66	1,798.95	359.79	1,798.95
					GL EXPEN ACCT TOTALS						266,204.76	45,217.00	1,042.73	5,896.69
					SUB-DEPT/PROD TOTALS						266,204.76	45,217.00	1,042.73	5,896.69
					DEPARTMENT TOTALS						266,204.76	45,217.00	1,042.73	5,896.69
410	000	4531	97917075-00	1	NEW TRUCK PLATFORM SCALE		1/52	20-00	5	0	6,690.66	6,690.66		
					GL EXPEN ACCT TOTALS						6,690.66	6,690.66		
					SUB-DEPT/PROD TOTALS						6,690.66	6,690.66		
					DEPARTMENT TOTALS						6,690.66	6,690.66		

NL INDUSTRIES

INTERNAL CORRESPONDENCE

SUBJECT	Licenses, Permits, Leases	DATE	8/20/79
TO	Wayne Rutkay	COMPANY UNIT	New York
FROM	Kathy Zenkert	COMPANY UNIT	Cleveland

Attached copies listed as follows:

Certificate of operation - boiler
Permit to Operate Fulton gas/no 2 oil fired boiler
Junk Dealer license
License to distribute dangerous drugs
Ohio EPA - Conveyor, crusher, separator
Ohio EPA - Mixers and kettles, burner pots 5,6,10,12,13,14,15 & 16.
Ohio EPA - Burner Pots 1,2,3,4 Burner modification to burn gas and No. 2 Fuel oil
Ohio EPA - Lead Smelting Blast Furnace - Two horizontal saws, battery saws
Title for 1966 Mack Tractor
Title for 1956 Steco Semi Trailer
Registrations for same

Leases

5 Rental Supplements from Clark Rental System for 6 pieces of equipment. No 157, 158, 155, 177F and 184F
Xerox Service Agreement
Buckeye Garment Rental Co. - Uniforms
Means Co. - Towels
Cory Coffee Services
CPP Security Services

I cannot find contracts for the following and I assume they are somewhere in Hightstown:

ADT Contract
Ohio Bell
Friden - Postage Machine

Kathy

DEPARTMENT OF INDUSTRIAL RELATIONS
Division of Boiler Inspection
2323 W. Fifth Ave. — P. O. Box 825
Columbus, Ohio 43216

R 155235
FEE PAID

CERTIFICATE OF OPERATION

Boiler No. 131600

Type CIS Size 24" x 34" Nat'l. Bd. No. Maximum Pressure 15stm PSI

Location of Boiler Same Date Issued APR 11 1979 Expires 1-30-80

Owner and/or User

N C Industries, Incorporated
2850 West 3rd Street
CLEVELAND OH 44113

Ext.
Insp. Date 1-30-79 By Factory Mutual in

Inspector J. Spiker

This Certificate is effective until the expiration date subject to the provisions of Sections 4104.01 to 4104.99, inclusive of the Revised Code of Ohio.

Rev.

POST UNDER GLASS IN BOILER OR ENGINE ROOM

PERMIT TO OPERATE

City of Cleveland
Division of Air Pollution Control
2735 Broadway Ave.
Cleveland, Ohio 44115

Permit No. O - 1123
Issuance Date May 16, 1979
Termination Date May 16, 1982

Control No. 2163
Fee $ N/A

Permission is hereby granted for the operation of a Fulton gas/no. 2 oil fired standby boiler, model # 20E, rated at 690,000 BTU/HR input and used for process steam.

Special Terms and Conditions

at N. L. Industries, Inc. Address 2850 West 3rd Street, Cleveland, Ohio 44113
Applicant Same Address Same
Att'n: Mr. Clatz

This permit does not authorize emissions of air contaminants in excess of City, State and Federal air pollution laws and regulations, nor does it exempt the holder from complying with the requirements of other Departments of the City of Cleveland, as well as State and Federal Agencies.
The Commissioner, or his authorized representative(s) may enter your premises at any reasonable time, or when a source is being operated or when a violation has occurred or may occur, for the purpose of making inspections, conducting tests and examining records or reports pertaining to the above described source of environmental pollutants.
The Commissioner may require this permit to be renewed at an earlier date, as specified in Section 259.06 of the Air Pollution Code of the City of Cleveland.
Breakdown of this equipment shall be reported to this Division in accordance with the procedures outlined in Section 279.01 of said Code.
This permit may be revoked as provided in Section 259.07 of said Code.

Gary A. Ried
COMMISSIONER

APPLICANT COPY

THIS LICENSE MUST BE DISPLAYED

FEE

$5.00

№ 20

City of Cleveland

Division of

Assessments and Licenses

WHOLESALE

JUNK DEALER

To Operate as a Wholesale Junk Dealer in Accordance with and subject to the Conditions, Restrictions and Limitations of the Ordinances of the City of Cleveland and subject to Suspension or Revocation for Violation.

EXPIRES MAR 30 1979

License is Hereby Granted To: N. L. Industries Inc

Located at 2850 W. 3rd St.

CITY OF CLEVELAND, O. DEPARTMENT OF FINANCE

Issued 5 3 1978

LOUIS J. CIVITTOLO
Commissioner of Assessments and Licenses

By

NOT TRANSFERABLE

OHIO STATE BOARD OF PHARMACY

180 EAST BROAD ST SUITE 1126
COLUMBUS, OHIO 43215

SIGN, POST AND DISPLAY

Before change of ownership, control address or location, notify secretary of the Ohio Board of Pharmacy immediately.

SIGNED _____
SIGNATURE OF RESPONSIBLE PHARMACIST OR PRACTITIONER

TERMINAL DISTR OF DANGEROUS DRUGS

Be it known that

N L INDUSTRIES
ROBERT M. WOLDMAN, MD.D
2850 W 3RD ST
CLEVELAND OH 44113

02-02-4260
IDENTIFICATION NUMBER

12/31/78
Expiration Date

has given satisfactory evidence that all statutory requirements as required by the Revised Code have been met. (Wholesale—R.C. 4729.52 and 4729.53. Terminal—R.C. 4729.54 and 4729.55). In witness whereof this certificate is issued under seal.

License Number 001 438

Ohio State Board of Pharmacy

State of Ohio Environmental Protection Agency, Box 1049, 361 East Broad Street, Columbus, Ohio 43216 (614) 466-8565

JAN 13 1978

RECEIVED JAN 16 1978 N. L. INDUSTRIES

1318000222 P004

N.L. INDUSTRIES, INC.
R.C. GLATZ
2850 WEST 3RD
CLEVELAND, OHIO OHIO 44113

OhioEPA

James A. Rhodes
Governor

Ned E. Williams, P.E.
Director

Dear Sir:

This letter is to notify you that the application(s) you had made for permit(s) to operate the air contaminant source(s) as described on the attached notice(s) have been reviewed by the Ohio EPA and placed on registration status by the Director.

Under current Ohio Environmental Protection Agency policies and regulations, operation of these sources does not require a permit to operate. Consequently the Ohio EPA will be taking no further action on the permit applications for these source(s) at this time.

This action does not affect your legal obligation to comply will all applicable Ohio EPA regulations, including emission regulations. Additionally, this action in no way precludes the Director's option of requiring a permit for these source(s) at some future date.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency and the Environmental Law Division of the Office of the Attorney General within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address:

Environmental Board of Review
395 East Broad St.
Columbus, Ohio 43215

Very truly yours,

Thomas E. Crepeau

Thomas E. Crepeau, Chief
Div. of Air Permits & Compliance Monitoring

AP-PS-240
6/16/77

100% Recycled Paper

NOTICE OF REGISTRATION

TO:
N.L. INDUSTRIES, INC.
2850 WEST 3RD
CLEVELAND OHIO 44113

FOR:

APPLICATION NO	1318000222 P004
EQUIPMENT DESCRIPTION	CONVEYOR, CRUSHER, SEPARATOR
COMPANY ID	TOP BENEFACTOR
ISSUE DATE	01/13/78
EFFECTIVE DATE	01/13/78

(SEE ENCLOSED LETTER FOR EXPLANATION)

Ned E. Williams

NED E. WILLIAMS, P.E.
DIRECTOR

State of Ohio Environmental Protection Agency, Box 1049, 361 East Broad Street, Columbus, Ohio 43216 (614) 466-8565

JAN 13 1978

RECEIVED JAN 16 1978 N.L. INDUSTRIES

CERTIFIED MAIL

1318000222 P006

N.L. INDUSTRIES, INC.
R.C. GLATZ
2850 WEST 3RD
CLEVELAND, OHIO OHIO 44113

OhioEPA

James A. Rhodes
Governor

Ned E. Williams, P.E.
Director

Dear Sir:

Enclosed are Permit(s) to Operate which allow you to operate the described air contaminant source(s) in the manner indicated in the permit(s). Because these permit(s) contain several conditions and restrictions, I urge you to read them carefully.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency and the Environmental Law Division of the Office of the Attorney General within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address:

Environmental Board of Review
395 East Broad St.
Columbus, Ohio 43215

If you have any questions, please contact the air pollution control agency to which you submitted your application. A list of these agencies is enclosed for your convenience.

Very truly yours,

Thomas E. Crepeau

Thomas E. Crepeau, Chief
Div. of Air Permits & Compliance Monitoring

100% Recycled Paper

OhioEPA

State of Ohio Environmental Protection Agency
James A. Rhodes, Governor
Ned E. Williams, Director

02

Permit to Operate an Air Contaminant Source
Terms and Conditions

Date of Issuance 01/13/78 Application Number 1318000222P006

Effective Date 01/13/78 Permit Fee $130

This document constitutes issuance to: N.L. INDUSTRIES, INC.
2850 WEST 3RD
CLEVELAND OHIO 44113

of a permit to operate:

MIXERS AND KETTLES
BURNER POTS 5,6,10,12,13,14,15,16

The following terms and conditions are hereby expressly incorporated into this permit to operate:

Condition 1

The above described air contaminant source is now operating, and over the period covered by the permit will be operated, in full compliance with all applicable state and federal laws and regulations.

Condition 2

Prior to any physical change in, or change in the method of operation of, this air contaminant source which increases the amount of any air pollutant emitted, or results in the emission of any air pollutant not previously emitted, a permit to install must be granted by the Ohio Environmental Protection Agency (See ~~Chapter EP-00~~ OAC 3745-31 of the regulations).

Condition 3

The Director of the Ohio Environmental Protection Agency, or his authorized representative, may enter upon the premises of the source operation at any reasonable time and subject to safety requirements of the person in control of the premises for the purpose of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants and determining compliance with all applicable State and Federal air pollution laws and regulations and the terms and conditions of this permit.

Condition 4 (This condition applicable if checked: ☐)

Upon declaration of an Air Pollution Alert, Warning or Emergency Episode this air contaminant source will follow those emission reduction procedures enumerated in the Emergency Action Plan approved by the Director for this source.

Condition 5

This permit to operate shall be effective until 01/12/81. You will be contacted approximately four months prior to this date regarding the renewal of this permit. If you are not contacted, please write to this agency.

Condition 6

A permit fee in the amount specified above must be remitted within fifteen (15) days of the effective date of this permit.

Condition 7

The Director must be notified in writing prior to any transfer of a permit to operate. Such transfer shall not take place without the written permission of the Director.

Condition 8 (This condition is applicable if checked: ☐)

This permit is subject to the supplementary conditions attached.

OHIO ENVIRONMENTAL PROTECTION AGENCY

Ned E. Williams
Director

10835

AP-PS-202

Re: Cleveland
Application for Burner Pots Nos. 1, 2, 3 and 4 - Burner Modification to burn gas and No. 2 Fuel Oil
Received November 7, 1977
From N. L. Industries, Inc.

January 27, 1978

N. L. Industries, Inc.
2850 West 3rd Street
Cleveland, Ohio 44113

CERTIFIED MAIL

Attention: Robert C. Glatz

RECEIVED FEB - 2 1978

Gentlemen:

Enclosed is the Ohio EPA Permit To Install which will allow you to install the described source in the manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

As indicated on the permit, you are required to pay a permit fee as provided for by Rule 3745-45-02 of the Ohio Administrative Code (former Ohio EPA Rule EP-39-02). The exact amount of this fee is indicated on page 1 of the Permit To Install. This amount must be remitted within fifteen (15) days of the effective date of the Permit To Install. Checks should be made payable to: Treasurer, State of Ohio and sent to Permits Bookkeeper, Division of Air Permits and Compliance Monitoring, 361 East Broad Street, Columbus, Ohio 43215.

Under OAC 3745-45 (former EP-39-05) no fee may be charged:

> The State or any political subdivision thereof, including educational or medical facilities owned by the State or a political subdivision.
> Any person exempted from taxation by Section 5709.07 or Section 5709.12 of the Ohio Revised Code.

If you qualify for a permit fee exemption as stated above, return the enclosed fee statement with written attestation of such exemption, using the enclosed envelope.

Under Ohio Revised Code, Chapters 119 and 3704, this permit will take effect on the date indicated unless you or an objector requests an adjudication hearing within thirty (30) days of the date of issuance, as provided for by Rule 3745-47-13 of the Ohio Administrative Code (former Ohio EPA Rule EP-40-13). At an adjudication hearing you may appear in person, or be represented by your attorney, or by such other representative as is permitted

to practice before this agency, or you may present your position, arguments, or contentions in writing. At the hearing you may present evidence and examine witnesses appearing for and against you. Requests for hearing shall be in writing and shall specify the issues of fact and law to be contested. Requests for hearing should be sent to the Hearing Clerk, Box 1049, 361 East Broad Street, Columbus, Ohio 43215.

The Director may withdraw this permit at any time before it takes effect.

If you have any questions, please contact the Ohio EPA District Office or local air pollution control agency to which you submitted your application.

Very truly yours,

Thomas E. Crepeau

Thomas E. Crepeau, Chief
Division of Air Permits and Compliance Monitoring

TEC/bs

Copy to Cleveland Division of Air Pollution Control
" " U.S. EPA

Substantial construction for installation must take place within eighteen months of the effective date of this permit. This deadline may be extended by up to twelve months, if application is made to the Director no less than sixty days before the expiration of this permit and the party shows good cause for any such extension.

The proposed source shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, examining records or reports pertaining to the construction, modification or installation of the above described source of environmental pollutants.

Unless exempt, a permit fee as specified above must be remitted within 15 days of the effective date of this permit to install, to the Treasurer, State of Ohio.

This permit shall apply only to the source shown on the plans approved by the Ohio Environmental Protection Agency.

The City of Cleveland Division of Air Pollution Control, Bureau of Engineering Services shall be notified, in writing as to (a) the construction starting date (b) the construction completion date and (c) the date the facilities were placed into operation.

OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install

Application No. 13-392

Applicants Name: N. L. Industries, Inc. Permit Fee: $65.00

Address: 2850 West Third Street

City: Cleveland State: Ohio 44113

Telephone: (216) 621-2361

Description of Proposed Source: Burner Pots No. 1, No. 2, No. 3, No. 4 - Burner Modification to burn gas and No. 2 Fuel Oil

Issuance Date: January 27, 1978

Effective Date: March 13, 1978

The above named entity is hereby granted a permit to install for the above described source pursuant to Chapter 3745-31 of the Ohio Administrative Code (former Ohio EPA Regulation EP-30). Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described source of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described source of pollutants will be granted the necessary operating permits. This permit is granted subject to the following conditions attached hereto:

Ohio Environmental Protection Agency

Ned E. Williams

by Ned E. Williams, P.E.
Director
361 East Broad Street
Columbus, Ohio 43215

State of Ohio Environmental Protection Agency, Box 1049, 361 East Broad Street, Columbus, Ohio 43216 (614) 466-8565

SEP 09 1977

RECEIVED
SEP 13 1977
N L INDUSTRIES

CERTIFIED MAIL

1318000222 P001

N.L. INDUSTRIES, INC.
R.C. GLATZ
2850 WEST 3RD
CLEVELAND, OHIO OHIO 44113

OhioEPA

James A. Rhodes
Governor

Ned E. Williams, P.E.
Director

Dear Sir:

Enclosed are Permit(s) to Operate which allow you to operate the described air contaminant source(s) in the manner indicated in the permit(s). Because these permit(s) contain several conditions and restrictions, I urge you to read them carefully.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Board of Review pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Board of Review within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency and the Environmental Law Division of the Office of the Attorney General within three (3) days of filing with the Board. An appeal may be filed with the Environmental Board of Review at the following address:

Environmental Board of Review
395 East Broad St.
Columbus, Ohio 43215

If you have any questions, please contact the air pollution control agency to which you submitted your application. A list of these agencies is enclosed for your convenience.

Very truly yours,

Thomas E. Crepeau

Thomas E. Crepeau, Chief
Div. of Air Permits & Compliance Monitoring

AP-PS-205
06/16/77

100% Recycled Paper

State of Ohio Environmental Protection Agency
James A. Rhodes, Governor
Ned E. Williams, Director

02

Permit to Operate an Air Contaminant Source
Terms and Conditions

Date of Issuance 09/09/77 Application Number 1318000222P001

Effective Date 09/09/77 Permit Fee $ 50

This document constitutes issuance to: N.L. INDUSTRIES, INC.
2850 WEST 3RD
CLEVELAND OHIO 44113

of a permit to operate:

LEAD SMELTING BLAST FURNACE
BLAST FURNACE

The following terms and conditions are hereby expressly incorporated into this permit to operate:

Condition 1

The above described air contaminant source is now operating, and over the period covered by the permit will be operated, in full compliance with all applicable state and federal laws and regulations.

Condition 2

Prior to any physical change in, or change in the method of operation of, this air contaminant source which increases the amount of any air pollutant emitted, or results in the emission of any air pollutant not previously emitted, a permit to install must be granted by the Ohio Environmental Protection Agency (See ~~Chapter EP-30~~ OAC 3745-31 of the regulations).

Condition 3

The Director of the Ohio Environmental Protection Agency, or his authorized representative, may enter upon the premises of the source operation at any reasonable time and subject to safety requirements of the person in control of the premises for the purpose of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants and determining compliance with all applicable State and Federal air pollution laws and regulations and the terms and conditions of this permit.

Condition 4 (This condition applicable if checked: ☒)

Upon declaration of an Air Pollution Alert, Warning or Emergency Episode this air contaminant source will follow those emission reduction procedures enumerated in the Emergency Action Plan approved by the Director for this source.

Condition 5

This permit to operate shall be effective until 09/08/80. You will be contacted approximately four months prior to this date regarding the renewal of this permit. If you are not contacted, please write to this agency.

Condition 6

A permit fee in the amount specified above must be remitted within fifteen (15) days of the effective date of this permit.

Condition 7

The Director must be notified in writing prior to any transfer of a permit to operate. Such transfer shall not take place without the written permission of the Director.

Condition 8 (This condition is applicable if checked: ☐)

This permit is subject to the supplementary conditions attached.

OHIO ENVIRONMENTAL PROTECTION AGENCY

Ned E. Williams
Director

8708

AP-PS-202

OhioEPA

State of Ohio Environmental Protection Agency
James A. Rhodes, Governor
Ned E. Williams, Director

02

Permit to Operate an Air Contaminant Source
Terms and Conditions

Date of Issuance 09/09/77 Application Number 1318000222P003

Effective Date 09/09/77 Permit Fee $ 50

This document constitutes issuance to: N.L. INDUSTRIES, INC.
2850 WEST 3RD
CLEVELAND OHIO 44113

of a permit to operate:
TWO HORIZONTAL SAWS
BATTERY SAWS

The following terms and conditions are hereby expressly incorporated into this permit to operate:

Condition 1

The above described air contaminant source is now operating, and over the period covered by the permit will be operated, in full compliance with all applicable state and federal laws and regulations.

Condition 2

Prior to any physical change in, or change in the method of operation of, this air contaminant source which increases the amount of any air pollutant emitted, or results in the emission of any air pollutant not previously emitted, a permit to install must be granted by the Ohio Environmental Protection Agency (See ~~Chapter EP-80~~ OAC 3745-31 of the regulations).

Condition 3

The Director of the Ohio Environmental Protection Agency, or his authorized representative, may enter upon the premises of the source operation at any reasonable time and subject to safety requirements of the person in control of the premises for the purpose of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants and determining compliance with all applicable State and Federal air pollution laws and regulations and the terms and conditions of this permit.

Condition 4 (This condition applicable if checked: ☐)

Upon declaration of an Air Pollution Alert, Warning or Emergency Episode this air contaminant source will follow those emission reduction procedures enumerated in the Emergency Action Plan approved by the Director for this source.

Condition 5

This permit to operate shall be effective until 09/08/80. You will be contacted approximately four months prior to this date regarding the renewal of this permit. If you are not contacted, please write to this agency.

Condition 6

A permit fee in the amount specified above must be remitted within fifteen (15) days of the effective date of this permit.

Condition 7

The Director must be notified in writing prior to any transfer of a permit to operate. Such transfer shall not take place without the written permission of the Director.

Condition 8 (This condition is applicable if checked: ☐)

This permit is subject to the supplementary conditions attached.

OHIO ENVIRONMENTAL PROTECTION AGENCY

Ned E. Williams
Director

8709

AP-PS-202

STATE OF OHIO, COUNTY OF CUYAHOGA

Prev. No. PA A18604265

CERTIFICATE OF TITLE TO A MOTOR VEHICLE

No. 18 1810096

This is to certify that:

N L INDUSTRIES FEB 27 1979

(Owner's First Middle Last Name) (Date This Title Issued)

2850 W 3 RD ST CLEVELANDOHIO

(Owner's Address in Full)

is the owner of the following described Motor Vehicle:

YEAR 1966 Mfr's Serial No. U615ST1565

MAKE MACK MODEL RNB236

BODY TYPE CAB & CHASSIS ONLY Mfr's No. NONE

having acquired title to said Motor Vehicle from:

Previous Owner DOEHLER JARVIS DIVISION

NATIONAL LEAD CO OLD READING PIKE POTTSTOWN PA

(Address of Previous Owner in Full)

on which Motor Vehicle are the following liens, mortgages or encumbrances:

If none, state here NONE

FIRST LIEN: Nature of Lien

Held by

Holder's Address in Full

Date of Notation Clerk's Signature

Above Lien Discharged Date of Cancellation

By Signature of Lienholder By Clerk's Signature Deputy Clerk

SECOND LIEN: Nature of Lien

Held by

Holder's Address in Full

Date of Notation Clerk's Signature

Above Lien Discharged Date of Cancellation

By Signature of Lienholder By Clerk's Signature Deputy Clerk

LICENSE ISSUED 197 79
TRANSFER ISSUED 197
TRUCK WEIGHT 14,500
Registrar of Motor Vehicles

THIRD LIEN: Nature of Lien

Held by

Holder's Address in Full

Date of Notation Clerk's Signature

Above Lien Discharged Date of Cancellation

By Signature of Lienholder By Clerk's Signature Deputy Clerk

If Dealer, Vendor's License No. Dlrs. Permit No.

Delivered Purchase Price $ CONV Ohio Sales or Use Tax Paid $

The (mileage) registered on the odometer of this vehicle at the time the previous title was assigned was 275300 miles

Witness my hand and official seal this day of FEB 27 1979 PBC

(SEAL)

Gerald E. Fuerst Clerk of Courts

By Deputy Clerk

Previous Number PENNA 404034

STATE OF OHIO, COUNTY OF CUYAHOGA

CERTIFICATE OF TITLE TO A MOTOR VEHICLE

No. 186168280

This is to certify that MASTER METALS INC JUNE 1 1970

(Owner's First Middle Last Name) (Date This Title Issued)

2850 W 3 ST CLEVELAND OHIO 186168280

(Owner's Address in Full)

is the owner of the following described Motor Vehicle:

YEAR 1958 Mfr's Serial No. 1145842

MAKE STECO MODEL DUMP

BODY TYPE SEMI TRAILER

having acquired title to said Motor Vehicle from:

Previous Owner TRI-BROOK INC

BROOKVILLE PENNA

(Address of Previous Owner in Full)

on which Motor Vehicle are the following Liens, mortgages or encumbrances:

If none, state here NONE

LICENSE ISSUED 1978 TRANSFER ISSUED 1978 TRUCK WEIGHT 12280 Registrar of Motor Vehicles

LICENSE ISSUED 1978 TRANSFER ISSUED 1978 TRUCK WEIGHT 12280 Registrar of Motor Vehicles

FIRST LIEN: Nature of Lien

Held by

Holder's Address in Full

Date of Notation

Above Lien Discharged

LICENSE ISSUED 1971 TRANSFER ISSUED 1971 TRUCK WEIGHT 12280 Registrar of Motor Vehicles

Clerk's Signature

Date of Cancellation

By Signature of Lienholder By Clerk's Signature Deputy Clerk

SECOND LIEN: Nature of Lien

Held by

Holder's Address in Full

Date of Notation

Above Lien Discharged

LICENSE ISSUED 1971 TRANSFER ISSUED 1971 TRUCK WEIGHT 12280 Registrar of Motor Vehicles

JUN 1 1970

Clerk's Signature

Date of Cancellation

LICENSE ISSUED 1971 TRANSFER ISSUED 1971 TRUCK WEIGHT 12280 Registrar of Motor Vehicles

By Signature of Lienholder By Clerk's Signature Deputy Clerk

THIRD LIEN: Nature of Lien

Held by

Holder's Address in Full

Date of Notation

Above Lien Discharged

LICENSE ISSUED 1976 TRANSFER ISSUED 1976 TRUCK WEIGHT 12280 Registrar of Motor Vehicles

Clerk's Signature

Date of Cancellation

LICENSE ISSUED 1976 TRANSFER ISSUED 1976 TRUCK WEIGHT 12280 Registrar of Motor Vehicles

By Signature of Lienholder By Clerk's Signature Deputy Clerk

LICENSE ISSUED 1976 TRANSFER ISSUED 1976 TRUCK WEIGHT 12280 Registrar of Motor Vehicles

If Dealer, Vehicle License No. 3700.00 Dlrs. Permit No. 135.00

Delivered Purchase Price $ Ohio Sales or Use Tax Paid $

JUNE 70 LMP

Witness my hand and official seal this day of 19

LICENSE ISSUED 1979 TRANSFER ISSUED 1979 TRUCK WEIGHT 12280 Registrar of Motor Vehicles

(SEAL) Emil J. Masgay Clerk of Courts

Revised 11/66 By [signature] Deputy Clerk

STATE OF OHIO
BUREAU OF MOTOR VEHICLES

COMMERCIAL REGISTRATION CARD

CERTIFICATE OF TITLE NO.	NEW	DATE PLATE ISSUED (MO. DAY YR.)	COUNTY	AGENCY NO.	EXPIRES LAST DAY OF (MO. YR.)	VALIDATION NO.	LICENSE NO.
186168280		030979	1814	2001	0580	TT13006511	130374

TAXING DISTRICT

1. OWNER'S COUNTY OF RESIDENCE: CU18

2A. IF OWNER LIVES INSIDE CORPORATION LIMITS, INSERT THE CITY OR VILLAGE IN WHICH HE LIVES: CLEVELAND

2B. IF OWNER LIVES OUTSIDE CORPORATION LIMITS INSERT TOWNSHIP IN WHICH HE LIVES:

SHOW 2A OR 2B - NEVER BOTH

LOCAL TAX FEE	PLATE FEE	WEIGHT	OWNER NAME
500	27775	12280	MASTER METALS INC

VEHICLE YEAR	VEHICLE MAKE	VEHICLE TYPE (TR TK TL OR FT)	OWNER HOME ADDRESS	Y-JOINT OWNER / X-COMMERCIAL
58	STE	TL	2850 W 3 ST	

VEHICLE SERIAL NO.	DO NOT USE	OWNER POST OFFICE	STATE	ZIP CODE
1145842		CLEVELAND	CH	

VALIDATION SEAL
THIS SPACE MUST SHOW DEPUTY REGISTRAR SEAL TO BE VALID.

ADDITIONAL NAME LINE

DEPUTY NAME: ROBERT T BENNETT

DEPUTY TOWN: CLEVELAND

070170

N

Y

Y

TEAR OFF THIS STUB

Master Metals Inc Charles Fairbank

030979 bw

TO OWNER

STATE OF OHIO
BUREAU OF MOTOR VEHICLES

COMMERCIAL REGISTRATION CARD

CERTIFICATE OF TITLE NO.	NEW	DATE PLATE ISSUED (MO. DAY YR.)	COUNTY	AGENCY NO.	EXPIRES LAST DAY OF (MO. YR.)	VALIDATION NO.	LICENSE NO.
181810096	X	030979	1814	2001	0580	TT15006852	15R772

TAXING DISTRICT

1. OWNER'S COUNTY OF RESIDENCE: CU18

2A. IF OWNER LIVES INSIDE CORPORATION LIMITS, INSERT THE CITY OR VILLAGE IN WHICH HE LIVES: CLEVELAND

2B. IF OWNER LIVES OUTSIDE CORPORATION LIMITS INSERT TOWNSHIP IN WHICH HE LIVES:

SHOW 2A OR 2B - NEVER BOTH

LOCAL TAX FEE	PLATE FEE	WEIGHT	OWNER NAME
500	34975	14520	N L INDUSTRIES

VEHICLE YEAR	VEHICLE MAKE	VEHICLE TYPE	OWNER HOME ADDRESS	Y-JOINT OWNER
66	MAC	TK	2850 W 3 ST	

VEHICLE SERIAL NO.	DO NOT USE	OWNER POST OFFICE	STATE	ZIP CODE	X-COMMERCIAL
U615ST1565		CLEVELAND	OH		B

VALIDATION SEAL
THIS SPACE MUST SHOW DEPUTY REGISTRAR SEAL TO BE VALID.

ADDITIONAL NAME LINE

DEPUTY NAME: ROBERT T BENNETT

DEPUTY TOWN: CLEVELAND

030979

N

Exhibit 8

Former Employees Cleveland Smelter

(Source: NL Industries, Phone Directories Available years 1955-1979)

Name	Position	Address	Phone	Year
L.H. Herthneck	Mgr.	4468 W. 213th Street Fairview Park, Ohio	Edison 1-5887	1951-1954
		1851 Westhill Blvd Westlake, Ohio	(216) 871-8698	1955-1973
J. W. Roper	Metal Buyer	20856 Northwood Av. Fairview Park, Ohio	(216) Edison 3-1012	1962-1965
G.B. Smallen	Supt.	24592 Brittany Av. E. Detroit, Michigan	(313) 777 6164	1967-1968
Kenneth Hahn	Supt.	21901 Robinhood Dr. Fairview Park, Ohio	(216) 734-3221	1969-1972
Richard C. Egan	Supt	6767 Wallace Blvd. No. Ridgeville, Ohio	(216) 327 7690	1972-1976
P.A. Kasmar	Mgr. Metal Purch.	160 River Road Hinckley, Ohio	(216) 278 4363	1972-1973

(No phone books for years 1974-1975)

Note: by 1976 the facility is no longer listed and the company has reorganized. The facility would have been included in the Metal Division. In this new structure, metals purchases may have been made the Metals Division.

H. J. Heinkele	Dir. Mktg & Mat. Metals Division	36 Colonial Dr. Covent, New Jersey	(212) 730 2754	1976- 1979
Robert Glatz	Plt. Mgr.	No listed address	(216) 871 3861	1977
John Berlin	Purch. Mgr. Scrap Metals (Div.)	No listed address	(404) 458 3202	1978
Joseph Finney	Dir. Of Material	No listed address	(609) 896 2210	1979
William Crake	Plt Mgr.	No listed address	(216) 621 2361	1979

GLOBE UNION

Globe Union, Inc

1979

TOLLING AGREEMENT

This Agreement dated as of the 1st day of January, 1979, between NL Industries, Inc., a New Jersey Corporation acting through its Metal Division (NL) and Globe Union, Inc., a Delaware Corporation (GLOBE).

NL and GLOBE agree as follows:

1. Tolling of Scrap. GLOBE shall supply scrap to NL and NL shall toll scrap for GLOBE in sufficient quantities to produce a minimum of 40,600 tons and a maximum of 44,900 tons of lead and lead alloys (Finished Products) on the terms and conditions set forth below.

2. Scrap and Recoverable Content. GLOBE shall supply to NL scrap material containing lead and antimony. The scrap shall consist of scrap whole starting, lighting and ignition storage batteries and plant scrap. Returnable content of scrap shall be 94.5% of the scrap's metal content, determined as set forth below:

a) Whole scrap batteries shall be deemed to assay by gross weight 48.96 percent metal content of which 97.74 percent shall be deemed to be lead, 2.06 percent antimony, 0.1 percent tin, and 0.1 percent arsenic. NL shall have

the right to adjust and modify the above percentage yields based on the battery sampling procedure and assay attached as Exhibit A, upon giving 30 days prior written notice to GLOBE. The adjustment shall be made by averaging the new and immediately prior yields under the sampling and assay procedures for all metals, except antimony for which the new yield results will control.

b) The lead, antimony, tin and arsenic content of plant scrap shall be determined by NL in accordance with the assay procedure, attached as Exhibit B. However, in no event shall GLOBE be entitled to receive credit for tin and arsenic contained in plant scrap as a percentage of the gross weight of returnable metal content in excess of 0.10 percent tin and 0.10 percent arsenic. GLOBE shall segregate and mark all plant scrap in accordance with NL's directions as agreed to. Improperly segregated and marked plant scrap may be rejected by NL or be assigned a nominal metal content, at NL's option. NL's assay results shall be conclusive upon the parties unless shown to be in error.

3. Delivery of Scrap. GLOBE shall deliver scrap f.o.b., NL plants and other locations set forth in Exhibit C to this Agreement for storage or processing. All deliveries shall be made during normal business hours and in accordance with NL's

procedures. NL shall use its best efforts to promptly unload trucks, railroad cars and barges.

When scrap is delivered to any location designated by NL, other than an NL plant, GLOBE shall notify NL in writing of the quantity and type of scrap delivered within 5 calendar days from the date of delivery.

Failure to notify NL within the prescribed time shall constitute a waiver of all claims, actions and causes of actions which GLOBE may have against NL for the scrap and GLOBE's sole remedy shall be against the operator of the location to which the scrap was delivered.

NL will weigh each shipment of material received, issue receipt for same and maintain adequate records.

The minimum and maximum quantities of scrap to be delivered to each location in terms of Finished Product to be shipped from each location, are set forth in Exhibit C opposite each NL plant and other location.

4. Scrap to be Tolled into Bullion. All scrap delivered by GLOBE to NL or NL designee shall be deemed to have been immediately tolled at the plant where the scrap was delivered into a bullion containing, by weight, 97.74 percent lead (including impurities), 2.06 percent antimony, 0.1 percent tin and 0.1 percent arsenic (Bullion). The metal composition of Bullion may be changed by NL upon giving written notice to GLOBE based on battery sampling and assays performed pursuant to Exhibit A. All further tolling shall be from Bullion to alloys as specified in writing by GLOBE.

To meet the metallic specifications of Bullion, NL shall add required quantities of lead, antimony, tin and arsenic. In this regard, NL shall first apply, to the extent available, quantities of antimony, tin and arsenic removed from Bullion in the production of alloys and softening of lead at that plant for GLOBE's account, provided that the quantity of antimony, tin and arsenic which shall be deemed available shall be 50 percent of the quantity removed from Bullion. GLOBE shall pay for all other additions of metals in quantities in excess of those credited to GLOBE from the production of alloy and softening of lead at that plant in accordance with Section 8 of this Agreement. GLOBE shall not be entitled to receive antimony, tin or arsenic except as a component of a lead alloy and NL shall not be required to transfer, deliver or pay for any unused quantities of antimony, tin or arsenic credited to GLOBE in connection with processing of Bullion into alloys or softening of lead. GLOBE shall maintain with NL, at all times while this Agreement remains in effect, an inventory of ~~3,000~~ 2500 tons of Bullion. If GLOBE's inventory of Bullion shall be less than ~~3,000~~ 2500 tons, GLOBE shall purchase Bullion from NL to bring the inventory up to ~~3,000~~ 2500 tons. GLOBE shall pay NL for Bullion a price computed in accordance with Section 8 of this Agreement.

5. <u>Delivery of Finished Products</u>. NL shall deliver Finished Products to GLOBE f.o.b. the NL plant to which scrap was delivered and Bullion was credited or transferred to GLOBE. GLOBE may

use credit for Bullion at any NL plant against receipts of Finished Products at any other plant shown on Exhibit C. GLOBE shall be entitled to transfer 200 tons per month of Bullion without charge. GLOBE shall pay a transfer charge of $20 per ton for all transfers in excess of 200 tons per month.

6. Inspection and Assay of Finished Products. GLOBE shall inspect and assay each shipment of Finished Products promptly and shall notify NL in writing of any defects in Finished Products or differences between the assay results obtained by GLOBE and the specifications for the Finished Products with respect to each shipment. If GLOBE shall not have notified NL of any defect or difference within sixty days from the date that a shipment of Finished Products is delivered f.o.b. NL's plant prior to use of the Finished Products by GLOBE, whichever shall occur first, the Finished Products shall be deemed for all purposes to have been in conformity with all specifications.

In the event of any discrepancy, which has been the subject of notification pursuant to this section, a third party assayer agreed upon by GLOBE and NL and named on Exhibit D, shall assay NL's retention sample of the Finished Products involved using established assay procedures and methods. The results of the assay performed by the third party shall be binding on GLOBE and NL.

7. Tolling Fee. As compensation for the work and services performed pursuant to this Agreement, GLOBE shall pay NL the following base processing and smelting fees:

Whole Scrap Batteries	$266/ton of returnable metal content of batteries delivered to NL.
Plant Scrap	$206/ton of scrap (gross weight) delivered to NL.

In addition to the base fees set forth above, GLOBE shall pay NL the following fees for the services specified below:

Alloying of Strontium lead.	$30/ton of alloy produced.
Removal from Bullion of antimony and other metals and minerals to produce soft lead.	$88/ton of soft lead produced.
Removal from Bullion of antimony and other metals and minerals to produce strontium lead.	$50/ton of strontium lead produced.

Tolling fees for alloys not shown on Exhibit C shall be separately agreed upon by the parties.

Base processing and smelting fees set forth in this Section shall be adjusted quarterly as set forth below to reflect increases in the cost of the following fuels and materials over the average price for the period January 1, 1978, to December 31, 1978:

Coke. For each increase of one point in the Wholesale Price Index published by the United States Department of Labor, Index 1967 = 100 (WPI), Code 052 for coke and increase of $0.055/ton.

Natural Gas. For each increase of one point in the WPI, Code 0531-0101 for natural gas an increase of $0.01/ton.

Liquified Petroleum Gas. For each increase of one point in the WPI for Code 0532-0103 an increase of $0.02/ton.

No. 2 Fuel Oil. For each increase of $1.00/barrel in average quotations for a) each coast - Philadelphia; b) Minnesota (Twin Cities South); and c) Indianapolis as published in Oil Daily, an increase of $0.035/ton.

No. 1 Heavy Melting Scrap Steel. For each increase of $1.00/ton in the price of No. 1 Heavy Melting Scrap Steel as published in American Metals Market, an increase of $0.08/ton.

The above price indices for the quarter prior to the quarter in which scrap whole batteries shall be received by NL shall be used in determining the amount of any adjustment to the base fees; 75 percent of the above prices will apply for plant scrap.

8. Materials Supplied by NL. NL shall provide all metals required in tolling scrap to produce Bullion and Finished Products for GLOBE in excess of quantities of metals credited to GLOBE's

account. NL shall charge and GLOBE shall pay NL for metals supplied by NL based on the following prices for the month in which scrap is received by NL in the case of Bullion; and for the month in which shipment is made to GLOBE in the case of Finished Products.

Lead.	U. S. Producer's average price as quoted in Metals Week for the month.
Antimony.	NL's average price for antimony in alloy (currently $1.75/pound) for the month.
Tin.	Average Composite Tin Price as published in Metals Week for the month.
Arsenic.	NL's average price for the month.
Silver.	Handy and Harman Silver Prices as published in Metals Week for the month.
Other Metals.	NL's average price of the metal or mineral for the month of shipment.

9. Forecasts. Thirty days prior to the end of each calendar quarter, GLOBE shall provide NL with a forecast of: (1) the quantities of scrap batteries and plant scrap which shall be delivered to NL; and (2) showing for each location set forth on Exhibit C for each month of the following calendar quarter the quantities and specifications of Finished Product to be delivered by NL.

GLOBE shall provide a schedule to NL at least 10 days prior to the end of each calendar month showing for each location set forth on Exhibit C for the following calendar month: (1) the

quantities of scrap which shall be delivered to NL; and (2) the quantities and specifications for each Finished Product to be delivered to GLOBE. Unless consented to in writing by NL, the quantities forecasted and scheduled pursuant to this section shall be within the minimum and maximum limits set forth on Exhibit C. GLOBE shall use its best efforts to schedule deliveries of scrap to NL and take delivery of Finished Products in approximately equal monthly giving due consideration to seasonal variations in amounts during the term of this Agreement and any extensions and renewals thereof.

10. GLOBE Specifications for Finished Products. NL shall, at GLOBE's written direction, manufacture Finished Products conforming to GLOBE's specifications. However, NL shall not be obligated to produce alloys which NL has not produced in commercial quantities for GLOBE prior to the execution of this Agreement as shown on Exhibit C. In no event shall NL be required to return scrap to GLOBE.

11. Invoice and Payment. NL shall invoice GLOBE by the sixth working day of the month following the month in which scrap shall be received by NL or Finished Products shall be delivered to GLOBE; and GLOBE shall pay the net amount of such invoices by the 20th day of that month.

12. Price Controls. If, because of any law, regulation, executive decree or other governmental action, NL is required to reduce any price or fee in effect under this Agreement or is

prevented from increasing any price or fee to the extent permitted by this Agreement, NL shall have the right to terminate this Agreement upon giving 45 days written notice to GLOBE. In such event, the parties enter into negotiations in good faith to reach a new agreement to avoid an interruption in supply to GLOBE.

13. Term. This Agreement shall become effective on January 1, 1979, and shall remain in effect through December 31, 1979.

14. Force Majeure. Neither party shall be liable for non-performance or delay in performance due to any contingency beyond its reasonable control including, but not limited to: acts of God, fires, floods, wars, force of arms, embargoes, labor, production or transportation difficulties, shortage of materials, power, traditionally used fuel, equipment, transportation, or labor or the inability to obtain same without litigation or the payment of penalties, premiums or unusual prices; accidents, explosions, sabotage, civil commotion or riots, court decrees, and adjustment thereof; any governmental law, rule, regulation, order request, instruction or injunction, whether valid or invalid (including, but not limited to, priorities, requisitions, allocations, and price adjustment restrictions); to the performance by NL of obligations it may voluntarily assume in connection with any priorities or other system for national defense or national or international economic recovery. Upon occurrence

of any such contingency, the party affected shall have the right to suspend or reduce deliveries during the period the contingency exists, and the total quantity deliverable under this Agreement shall be reduced by the quantity so omitted.

15. Allocation. In the event of any reduction in plant capacity or shortage of supplies or raw materials, NL may, without obligation to purchase similar products from other sources, and after satisfying its own requirements allocate the products among its customers, on any basis and in any proportion as shall, in NL's sole judgment, fairly allocate the supply, and GLOBE releases NL from any liability for failure to deliver the quantity specified in this Agreement. The total quantity deliverable under this Agreement shall be reduced by the quantity omitted through allocation.

16. Tax Changes. Any tax or governmental charge becoming effective and payable by NL because of this Agreement including sales tax, use tax, retailer's occupational tax, energy tax and gross receipts tax, shall be added to the prices then in effect. These additions shall not constitute a price adjustment.

17. No Resale of Batteries. NL and its designees shall destroy all scrap batteries and shall not sell, trade or transfer any scrap batteries to any other person or firm.

18. Safe Handling. Except for periods when scrap, Bullion and Finished Products are under the exclusive control of NL or NL's designee, GLOBE shall idemnify and hold NL harmless from any

loss, cost, damage or expense, including reasonable attorney's fees which NL may incur in connection with this Agreement, including compliance with federal, state and local regulations governing unloading, discharge, storage, handling and use of scrap and Finished Products.

19. Pallets and Containers. NL shall not be obligated to pay for or return any pallets, drums or other containers which are used to ship or deliver scrap to NL to GLOBE.

20. Warranties. NL warrants that the products supplied and services performed pursuant to this Agreement shall conform to applicable written specifications and be suitable for the manufacturing process for which intended (BUT NOT FOR THE PERFORMANCE OF ANY SUCH COMPONENT OF A BATTERY) and that Finished Products furnished under NL's specification shall not infringe the claims of any valid U. S. patent. NL MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS MERCHANTABILITY OR OF THE MATERIAL FOR ANY PARTICULAR PURPOSE EVEN IF THAT PURPOSE IS KNOWN TO NL.

21. Limitation of Liability. NL's liability for all damages arising with respect out of or in connection with this Agreement or products supplied pursuant to this Agreement, including liability for indirect, consequential and special damages, and personal injury and property damage to GLOBE, its employees and customers whether based on contract, warranty, negligence or strict liability, shall not exceed the fair market value of the

Finished Products as to which liability arises and GLOBE shall hold NL harmless from any and all losses, costs and expenses in excess thereof.

22. Patent Infringement. GLOBE shall save NL harmless against any infringement or threatened infringement of any U. S. patent by reason of NL's performance in accordance with product and process specifications prescribed by GLOBE pursuant to this Agreement and GLOBE shall indemnify NL for all judgments, decrees, damages, trial costs and trial expenses covered against NL on account of such infringement.

23. Termination. Either party shall have the right to terminate this Agreement immediately by written notice upon the institution of bankruptcy, liquidation or receivorship proceedings by or against the other party.

Upon termination or expiration of this Agreement, NL shall complete the processing of all scrap on hand and deliver Finished Products to GLOBE in accordance with GLOBE's directions and specifications. Unless specified in writing by GLOBE within 90 days, NL shall be entitled to return to GLOBE Finished Products selected at NL's discretion. NL shall deliver Finished Products to GLOBE within a reasonable time consistent with prior performance under this Agreement. GLOBE shall promptly pay NL all amounts due pursuant to this Agreement.

24. Exhibits. The following Exhibits are attached to and made part of this Agreement:

A - Battery Sampling Procedure

B - Laboratory Sampling Procedure

C - NL Plant Locations

D - Third Party Assays

25. Entire Agreement. This Agreement constitutes the entire agreement between the parties, and supercedes all prior understandings, representations, or warranties. No modification of this Agreement shall be valid unless it is in writing signed by the parties. No modification shall be effected by the acknowledgement or acceptance of GLOBE's purchase order forms or other forms containing different terms or conditions.

26. Assignability. Neither party shall assign this Agreement of its rights under this Agreement, without the written consent of the other party, except that NL shall have the right to assign all or any part of this Agreement in connection with any transfer of its lead smelting operations.

27. Notice. All notices required to be given pursuant to this Agreement shall be in writing and shall be sent by certified or registered mail, return receipt requested to: NL Industries, Inc., Metal Division, P. O. Box 3618, Hightstown, New Jersey 08520. Globe Union, Inc., 5757 N. Green Bay Milwaukee Wisc 53201

28. Governing Law. The validity, construction and performance of this Agreement shall be governed by and construed in accordance with the laws of the State of New Jersey.

AGREED:

NL INDUSTRIES, INC.

By: Jay W DeDapper

Title: Exec. V. P. - Opns

AGREED:

GLOBE UNION, INC.

By: Russell G Mason 4/2/79
Russell G. Mason

Title: Globe-Union Inc.
Mgr. - Purchasing and Material Group

RECEIVED
MAR 5 19
BATTERY DIV.
PURCHASING

EXHIBIT A

A TOLLING AGREEMENT DATED JANUARY 1, 1979

BETWEEN NL INDUSTRIES, INC.

and

GLOBE UNION, INC.

BATTERY SAMPLING PROCEDURE

A sample shall consist of six hundred batteries. Every tenth battery, including plastic case batteries, shall be taken from the trucks selected for sampling up to a maximum of sixty from any one truck. Factory rejects shall not be included in the sample. Sampling shall continue from ten or more trucks until six hundred sample batteries have been accumulated. Each truck sample shall be palletized on a pre-weighed skid and weighed immediately and tagged with gross, tare, net weights and number of batteries. Scale tickets for each pallet shall be sent with the spread sheet to Atlanta.

Provision should be made to include in the tare weight the weight of any packing material used to secure the batteries on the skid (corrugated board, steel strapping, etc.). This can be done by weighing skid again after packing.

In other words:

1. Weigh skid (individual pallet weights at the sampling plant shall govern)
2. Weigh skid and batteries
3. Weigh skid, batteries and packing

Sampling shall be perfored by NL employees at Atlanta.

When Atlanta calls for samples to be shipped to them, six hundred batteries shall be loaded in a trailer (pre-weight empty), sealed and weighed. Scale tickets shall be sent to Atlanta as above. Any gain or loss in weight compared with the accumulated weight of the samples shall be recorded.

The trailer will then be shipped as an exclusive load to NL's Atlanta plant where it will be re-weighed, and any gain or loss in weight shall be recorded.

BATTERY DECASING

The six hundred battery sample shall then be decased by chopping. Any battery which cannot be chopped will be decased by hand or by other practical means. Plastic cased batteries are crushed whole.

If for any reason batteries are eliminated from or added to the sample at Atlanta, these batteries shall be weighed and weights recorded.

Top metal shall be recovered by crushing the tops and separating by air classification. All the groups and all the top metal recovered shall be collected.

All metal bearing materials recovered from batteries decased by means other than chopping shall be added to the groups recovered by chopping. Metal and dross recovered shall be analyzed for lead and antimony.

Discard from air classification of top materials shall be weighed, sampled and assayed for lead and antimony content.

All top metal shall be weighed and liquidated in a sample kettle.

Groups shall drain at least 16 hours and then be weighed.

Gross weight of drained groups shall be recorded. The gross weight should be approximately 13,000 lbs. This entire quantity shall be thoroughly mixed on the yard, then coned and quartered, once by alternate endloader scoops. One of the halves shall then be reduced through a riffle to about 1,200 lbs.

If desired and agreed, the other half can be similarly processed to obtain another sample of about 1,200 lbs. Rejects shall be weighed and the yard area swept clean and recovered material weighed. Totals should check with original group weight. Any difference shall be recorded.

The 1,200 lbs sample shall then be accurately weighed, liquated in a kettle keeping the inside bottom temperature at less than 880°F, the dross skimmed and the metal pot piece sampled, frozen and removed. After cooling over-night, any metallic pieces shall be removed from the dross, added to the pot piece, each part weighed accurately and the weights recorded.

The sample of the metal pot piece shall be analyzed for antimony; the balance being considered to be lead.

The dross, weighing around 900 lbs shall be coned and quartered to about 100 lbs after any large chunks have been broken up.

The approximately 100 lbs of dross remaining shall be reduced by hand until all will pass through a ¼" screen. Any plus ¼" shall be liquated, the dross added to the minus ¼" which shall be accurately weighed. The liquated metal shall be accurately weighed and analyzed for antimony; the balance assumed to be lead.

The minus ¼" shall be riffled to approximately 25 lbs, ground to pass through 40 mesh and riffled to about 1000 grams, then liquated and dross ground to pass 80 mesh and riffled to about 1000 grams. This shall be screened on an 80 mesh screen, the plus 80 metallics liquated and the dross ground to pass an 80 mesh. In this case there is generally a plus 80 mesh unliquatable metallic resulting in three functions: the minus 80 mesh fines, the plus 80 mesh free metal and the plus 80 mesh metallics. Each shall be carefully weighed and the weights recorded. The plus 80 mesh free metal shall be analyzed for antimony considering the balance to be lead. The plus 80 mesh metallics shall be analyzed for antimony and lead.

The minus 80 mesh shall be mixed thoroughly, riffled to about 2 lbs, carefully weighed and the weight recorded. This shall then be ground to minus 140 mesh and, if metallics persist, separated and weighed.

The minus 140 mesh shall be thoroughly mixed and accurately split into four parts.

The minus 140 mesh fines shall be analyzed in triplicate for lead, using a one gram sample, and for antimony. The plus 140 mesh metallics, if any, shall be analyzed for lead and antimony.

When duplicate samples are processed, the results shall be reported separately and averaged.

TREATMENT OF TOP METAL

All of the top metal produced in the separator shall be weighed, average weight circulated per battery and recorded.

The top metal, approximately 1,200 lbs shall be liquated in a sample kettle, the dross skimmed and the metal pot piece sampled, frozen and removed. Both dross and metal shall be accurately weighed and the weights recorded.

The pot piece sample shall be analyzed for antimony; the balance to be considered to be lead.

The dross shall be reduced in size and quantity like the kettle dross and the parts analyzed in the same manner.

LOCATION

All sample preparation and analytical work shall be done at NL's Atlanta plant.

CHECK ASSAYS

Samples of minus 140 mesh shall be sent to Standard Testing Laboratories, Inc. for analysis of lead and antimony content.

EXHIBIT B

A TOLLING AGREEMENT DATED JANUARY 1, 1979

BETWEEN NL INDUSTRIES, INC.

and

GLOBE UNION, INC.

NL Metal
Metal Division/NL Industries, Inc
P.O. 3618, Hightstown, N J 08520

Refining

S-O-P# 122

Process: Sampling of Dross Suitable for Chemical Analysis.

Purpose: In order to obtain a representative sample, for analytical testing, of nonhomogeneous mixtures such as drosses, which contain free metal, it is necessary to follow a uniform procedure. The procedure described below will yield proper samples and is to be used after the date or receipt of this procedure.

Equipment:
Analytical balance – capacity 2 kilograms
Scale – capacity 100 lbs.
Steel or cast iron ladle – capacity 50 lbs.
Sample furnace – air/gas capable of producing uniform temperatures of at least 1000°F.
Bell grinder
20-40-100 mesh screens
Fire assay furnace
Crucibles – Denver fire clay crucibles, Size J
Reserve sample containers

Materials Needed:
Reducing flux prepared as follows:

Sodium carbonate	3 lb. 14 oz.
Potassium carbonate	3 lb. 14 oz.
Sodium tetraborate (borax)	3 lb. 14 oz.
Calcium oxide (low Mg lime)	9 oz.
Fluorite (fluorspar)	9 oz.
Baking flour	3 lb. 14 oz.

Procedure:

1. After the sample has been quartered from the lot, all four quarters are weighed separately and accurately. The weight is recorded and the samples are put into drying ovens and dried to a constant weight (normally requires 12 hours maximum). Individual samples are reweighed, pan or tare weight recorded and moisture determined and recorded.

2. Two of the four samples are placed into suitable containers and held as reserve samples; the remaining two quarters are prepared for laboratory analysis.

3. If the sample contains large metallic pieces, they are to be removed and weighed separately. The free metal is melted in a ladle; the resultant bar or bars are cast into a steel mold, solidified and weighed. Any resultant oxides must then be added to the dross portion of the sample and the increased weight recorded.

4. The entire dross sample is put into a preheated ladle; the ladle is then put into the sample furnace; the temperature of the sample furnace is increased to approximately 850°F and the dross slowly agitated with a wooden stick or paddle to produce a metal bath by sweating the free metal from the sample. After a visual inspection reveals all of the metal is in the molten bath, the metal is poured into a mold, cooled and weighed.

TE: This procedure is to be used until replaced by a later issue at which time this should be destroy

Procedure:

5. The dross portion is then put through the bell grinder and completely ground. The sample is screened through 20-40-100 mesh screens. The particles on a 20 and 40 are returned to the ladle to melt additional free metals. *The free metal is weighed and added to the metal (see 3.)*

6. The dross from the above melt (5) is put through the bell grinder and again screened until all will pass through a 40 mesh.

7. The total dross portion, minus 40 mesh, is rolled on paper to obtain a completely uniform sample. From this sample, 300 grams are cut from top, bottom and sides. These 300 grams are again rolled to assure a composite sample. The sample is then screened through a 100 mesh and weighed. The sample is then ready for the laboratory where portions taken for analysis should be weighed by percentage of coarse and fines as established by the 300 gram sample percent on and through 100 mesh.

8. The percent recoverable metal in the dross sample is now determined in the following manner:

   Place 25 grams of flux in the bottom of an assay crucible; then mix 200 grams of sample with 150 grams of flux and add to crucible. Cover the sample with a 25 gram layer of flux and pack down in crucible.

9. Load sample containing crucibles into a cold furnace and start heating. Hold sample at high heat for two hours. Allow furnace to cool. Remove crucible and recover metal button.

   The total percent recoverable metal in the original sample is calculated as follows:

   $$\text{Percent Recoverable Metal} = \left(\frac{a + (s-a)\,(B/200)}{S}\right) 100$$

   where a = Weight of free metal recovered from original sample
   B = Weight of metal button from fire assay
   S = Weight of original sample

10. Returnable metal: 95% of Recoverable Metal.

DATA SHEET
BATTERY PLATE SAMPLING

1. Sample plates weight, as received _____ lbs.

2. Sample plates weight, after drying _____ lbs.

3. % Moisture: $\frac{\text{Wt. (1)} - \text{Wt. (2)}}{\text{Wt. (1)}} \times 100 =$ _____ %

4. Weight of foreign material removed:

   % Foreign material as received $= \frac{\text{Wt. (4)}}{\text{Wt. (1)}} \times 100$ _____ %

5. Weight of metal button recovered, adjust for weight of the hook _____ lbs.

6. Additional metal recovered based on free metal in the dross work-up as per S-O-P #122, include metal sample bar _____ lbs.

7. Total free metal

   Wt. (5) + Wt. (6) = _____ lbs.

8. Total active material (sweated) as determined by dross weight in the weighed dross drum.

   Dross Weight: _____ lbs.

9. Adjusted dross weight after dross work-up (S-O-P #122) _____ lbs.

10. After analysis of the metal sample and dross sample, calculate the lead and antimony for the total sample analysis and value.

Metal	% Antimony	_____
Dross	% Antimony	_____
	% Lead	_____

NL Industries Plant _____

Date _____

3. Samples to be dried in an oven should be placed in clean sample pans. The sample pans and samples are placed in the oven at 225°F for about 24 hours.

4. Weigh the sample plates after step 2b or 3, to determine the moisture content by the weight lost on drying. Record the weight.

5. After drying and weighing, the sample should be inspected to determine the amount of rubber and other foreign material.

   Remove the foreign material, weigh and record the weight.

6. Carefully place the plates in a clean, small kettle (1 ton) which is heated and temperature controlled at from 700-750°F.

   Some diesel fuel or sawdust should be added to the plates and ignited to aid in the melt down.

7. After the grid metal has melted and sweated out of the plates, squeeze the dross carefully with a skimmer to recover as much free metal into the kettle as possible.

8. Carefully remove the dross and place into a clean weighed container for further working as a dross. See S-O-P #122, "Sampling of Dross Suitable for Chemical Analysis."

   Weigh and record weight of drum and dross.

9. Using a clean sample ladle, pour a sample bar, representative of the metal recovered in the kettle. Have sample analyzed for antimony. All other elements will be reported as lead balance.

10. Turn off the kettle burner. As the metal cools, place a weighed hook into the metal button to facilitate removal of the button.

11. When cool, weigh the metal button and hook. Subtract the weight of the hook and record button weight.

12. Turn over all recorded weights to the foreman for use in calculating total plate analysis. The metal and dross analyses are necessary for this calculation. The dross requires lead and antimony analysis.

13. See attached typical sheet for recording data.

DATA SHEET
BATTERY PLATE SAMPLING

1. Sample plates weight, as received _____ lbs.

2. Sample plates weight, after drying _____ lbs.

3. % Moisture: $\frac{\text{Wt. (1)} - \text{Wt. (2)}}{\text{Wt. (1)}} \times 100 =$ _____ %

4. Weight of foreign material removed:

   % Foreign material as received $= \frac{\text{Wt. (4)}}{\text{Wt. (1)}} \times 100$ _____ %

5. Weight of metal button recovered, adjust for weight of the hook _____ lbs.

6. Additional metal recovered based on free metal in the dross work-up as per S-O-P #122, include metal sample bar _____ lbs.

7. Total free metal

   Wt. (5) + Wt. (6) = _____ lbs.

8. Total active material (sweated) as determined by dross weight in the weighed dross drum.

   Dross Weight: _____ lbs.

9. Adjusted dross weight after dross work-up (S-O-P #122) _____ lbs.

10. After analysis of the metal sample and dross sample, calculate the lead and antimony for the total sample analysis and value.

Metal	% Antimony	_____
Dross	% Antimony	_____
	% Lead	_____

NL Industries Plant _____

Date _____

NL Metal
Metal Division/NL Industries, Inc
P.O. 3618, Hightstown, N J 08520

Refining

S-O-P# 123

Process: Test procedure for evaluating truckloads of battery plates.

Purpose: In order to assign the proper value to scrap battery plates, it is necessary that the free metal and active materials in the plates be carefully separated and each portion analyzed separately. The total analysis and value of the plates can then be calculated.

Equipment:
Scales – 500 pound capacity
25 pound capacity
Sample pans
Drying oven (225°F)
Lead melting kettle (1 ton)
Hood for kettle, draft velocity must be at least 200 feet per minute
Pyrometer and thermocouple (700-750°F)
Dross Skimmer
Hooks for removing metal button
Sample ladle and mold

Materials Needed:
Fuel oil
Sawdust
Calculation Sheets

Safety Precautions: Operator must wear an approved respirator, face shield, safety glasses, hard hat, safety shoes, acid resistant gloves, heat resistant gloves and spats.

Operator must be assured that all tools and equipment that contact molten metal are dry. Wet tools cause spattering.

The kettle must be hooded and the draft velocity at least 200 feet per minute.

Procedure: It is assumed that the plates selected for this test procedure are representative of the entire truckload. If the sample plates chosen are not representative, all the further testing will be inaccurate. All equipment must be clean when used.

1. About 225 pounds of plates, representative of the truckload are carefully weighed. Record the weight so that moisture content can be calculated.

2. Transfer the samples to one of the following:

   a. The sample room for oven drying (225°F)

   b. A clean, warm area, where the plates can be spread out and air dried for 24 to 48 hours.

NL Metal

Metal Division/NL Industries, Inc
P.O. 3618, Hightstown, N J 08520

Refining

S-O-P# 122

Process: Sampling of Dross Suitable for Chemical Analysis.

Purpose: In order to obtain a representative sample, for analytical testing, of nonhomogeneous mixtures such as drosses, which contain free metal, it is necessary to follow a uniform procedure. The procedure described below will yield proper samples and is to be used after the date or receipt of this procedure.

Equipment:
Analytical balance — capacity 2 kilograms
Scale — capacity 100 lbs.
Steel or cast iron ladle — capacity 50 lbs.
Sample furnace — air/gas capable of producing uniform temperatures of at least 1000°F.
Bell grinder
20-40-100 mesh screens
Fire assay furnace
Crucibles — Denver fire clay crucibles, Size J
Reserve sample containers

Materials Needed:
Reducing flux prepared as follows:

Sodium carbonate	3 lb. 14 oz.
Potassium carbonate	3 lb. 14 oz.
Sodium tetraborate (borax)	3 lb. 14 oz.
Calcium oxide (low Mg lime)	9 oz.
Fluorite (fluorspar)	9 oz.
Baking flour	3 lb. 14 oz.

Procedure:

1. After the sample has been quartered from the lot, all four quarters are weighed separately and accurately. The weight is recorded and the samples are put into drying ovens and dried to a constant weight (normally requires 12 hours maximum). Individual samples are reweighed, pan or tare weight recorded and moisture determined and recorded.

2. Two of the four samples are placed into suitable containers and held as reserve samples; the remaining two quarters are prepared for laboratory analysis.

3. If the sample contains large metallic pieces, they are to be removed and weighed separately. The free metal is melted in a ladle; the resultant bar or bars are cast into a steel mold, solidified and weighed. Any resultant oxides must then be added to the dross portion of the sample and the increased weight recorded.

4. The entire dross sample is put into a preheated ladle; the ladle is then put into the sample furnace; the temperature of the sample furnace is increased to approximately 850°F and the dross slowly agitated with a wooden stick or paddle to produce a metal bath by sweating the free metal from the sample. After a visual inspection reveals all of the metal is in the molten bath, the metal is poured into a mold, cooled and weighed.

NOTE: This procedure is to be used until replaced by a later issue at which time this should be destroy

Procedure:

5. The dross portion is then put through the bell grinder and completely ground. The sample is screened through 20-40-100 mesh screens. The particles on a 20 and 40 are returned to the ladle to melt additional free metals. The free metal is weighed and added to the metal (see 3.)

6. The dross from the above melt (5) is put through the bell grinder and again screened until all will pass through a 40 mesh.

7. The total dross portion, minus 40 mesh, is rolled on paper to obtain a completely uniform sample. From this sample, 300 grams are cut from top, bottom and sides. These 300 grams are again rolled to assure a composite sample. The sample is then screened through a 100 mesh and weighed. The sample is then ready for the laboratory where portions taken for analysis should be weighed by percentage of coarse and fines as established by the 300 gram sample percent on and through 100 mesh.

8. The percent recoverable metal in the dross sample is now determined in the following manner:

   Place 25 grams of flux in the bottom of an assay crucible; then mix 200 grams of sample with 150 grams of flux and add to crucible. Cover the sample with a 25 gram layer of flux and pack down in crucible.

9. Load sample containing crucibles into a cold furnace and start heating. Hold sample at high heat for two hours. Allow furnace to cool. Remove crucible and recover metal button.

   The total percent recoverable metal in the original sample is calculated as follows:

   Percent Recoverable Metal = $\left(\frac{a + (s-a)(B/200)}{S}\right) 100$

   where a = Weight of free metal recovered from original sample
   B = Weight of metal button from fire assay
   S = Weight of original sample

10. Returnable metal: 95% of Recoverable Metal.

EXHIBIT C

A TOLLING AGREEMENT DATED JANUARY 1, 1979

BETWEEN NL INDUSTRIES, INC.

and

GLOBE-UNION INC.

EXHIBIT C TO GLOBE UNION - NL TOLLING AGREEMENT

NL locations and twelve month tonnages (short tons)

	Strontium Lead	Pure Lead	Antimonial Lead
Cleveland, Ohio	4,100	--	4,000
Pedricktown, N. J.	1,600	2,080	7,500
McCook, Ill.	1,320	2,200	--
Atlanta, Ga.	--	1,740	5,200
Granite City, Ill.	--	--	3,000
Beech Grove, Ind.	--	--	10,000
TOTALS	7,020	6,020	29,700
			42,740

GOULD

TOLLING AGREEMENT

This Agreement dated as of the first day of April, 1977 between N L Industries, Inc. a New Jersey Corporation acting through its Metal Division (N L) and Gould, Inc., a Delaware Corporation (Gould).

Gould Inc already on PRP list & sent letter

NL and Gould agree as follows:

1. Gould to Supply Lead and Antimony Lead Alloy Scrap Materials. Gould shall supply to NL scrap material containing lead and antimony. The scrap shall consist of whole unbroken starting, lighting and ignition storage batteries and plant scrap. Plant scrap shall be composed of two categories:

a) starting, lighting and ignition battery plates, pot dross, casting dross, rejected lead oxides, lead dust and wheel weights; and

b) sump mud and slurry.

2. NL to Credit Gould's Account for Lead and Antimony Content of Scrap. NL shall credit Gould's account at the NL plant to which the scrap is delivered with the 95% of the lead and antimony contained in scrap delivered to NL by Gould. For the purpose of crediting Gould's account, whole scrap batteries shall be deemed to contain 49.16% by gross weight of recoverable metal which 97.65% shall be deemed to be lead and 2.35% antimony. NL shall have the right to adjust and modify the above percentage yields based on the battery sampling procedure, attached as Exhibit A, upon giving 30 days prior written notice to Gould.

The antimony and lead content of plant scrap shall be determined by NL in accordance with the assay procedure, attached as Exhibit B.

NL shall also credit Gould's account for the tin and arsenic content of scrap determined in accordance with the assay procedure attached as Exhibit B. However, in no event shall Gould be entitled to receive credit for tin and arsenic contained in scrap as a percentage of the gross weight of recoverable metal content in excess of .10% tin and .10% arsenic.

NL's assay results shall be conclusive upon the parties.

Unless otherwise agreed to in writing by the parties. No credit shall be given for any other metal, mineral or material contained in the scrap irrespective whether or not it is recoverable.

3. NL to Return Lead and Lead Antimony Alloys to Gould. NL shall return to Gould, at the plant where the scrap was delivered, lead and lead antimony alloys (Finished Products) with lead and antimony content by weight equal to the amount of lead and antimony credited to Gould pursuant to Section 2 above. NL shall, at Gould's written direction, manufacture lead and lead-antimony alloys in accordance with Gould's directions and specifications. However, NL shall not be obligated to produce alloys which NL has not produced in commercial quantities for Gould prior to the execution of this Agreement. In no event shall NL be required to return scrap

to Gould.

4. Quantities. Gould shall deliver or previously have delivered to NL at the locations set forth on Exhibit C scrap sufficient to produce at least 14,000 tons of secondary lead and lead-antimony alloys. The quantities of scrap, stated in terms of Finished Product to be delivered to each location, are set forth in Exhibit C opposite each plant location. NL reserves the right to modify Exhibit C by adding or deleting locations and by increasing or decreasing quantities for any location upon giving written notice to Gould. Gould shall have the option to delete the quantities identified on Exhibit C for the location affected upon giving written notice to NL within 30 days from the date notice of the change shall have been given by NL.

5. Forecast of Quantities of Secondary Lead and Lead Antimony Alloys to be Produced. Thirty days prior to the end of each contract quarter, Gould shall provide NL with a written forecast of: (1) the quantities of scrap to be delivered to NL at each of the locations designated on Exhibit C; and (2) a statement of lead and lead antimony alloys to be delivered to Gould at each location during the calendar quarter; and (3) the quantities and specification by location for each lead antimony alloy to be delivered by NL.

Gould shall notify NL in writing at least 10 days prior to the end of each calendar month of the scheduled quantities and specifications for lead and lead-antimony alloys to be delivered to Gould in the succeeding month for each location designated on Exhibit C. Gould shall use its best efforts to

schedule deliveries of scrap to NL and take delivery of lead and lead-antimony alloys in approximately equal monthly amounts during the contract year.

6. Reserves of Scrap. Gould shall maintain a reserve of scrap with NL containing not less than 500 tons of lead and antimony consisting of 488 tons of lead and 12 tons of antimony. The scrap reserve shall be delivered to NL at its plant(s).

If Gould's inventory shall fall below the minimum amounts specified, NL shall transfer lead and antimony to Gould's account. Gould shall pay NL for all quantities of lead transferred to Gould at NL's average price for the month of transfer and for all quantities of antimony transferred at the RMM Laredo price as published in Metals Week for the month of transfer plus freight.

7. Delivery of Scrap. Gould shall deliver all scrap F.O.B. NL plants as designated in Exhibit C or to other nearby locations designated by NL in writing for storage or processing by NL. All deliveries shall be made during normal business hours and in accordance with NL's usual plant procedures. NL shall use its best efforts to promptly unload trucks, railroad cars and barges. However, Gould shall hold NL harmless from any demurrage charges which NL may incur.

When scrap is delivered to any location designated by NL, other than an NL plant, Gould shall notify NL in writing of the quantity and type of scrap delivered to the other designated locations within 5 days of the day of delivery. Failure to notify NL within the prescribed time shall constitute a waiver of all claims, actions and causes of actions which Gould may

have against NL for the scrap and Gould's sole remedy shall be against the operator of the location to which the scrap was delivered.

8. Delivery of Lead and Lead Antimony Alloys. NL shall deliver to Gould lead and lead-antimony alloys F.O.B. the NL plant to which scrap containing an equivalent amount of lead and antimony were delivered. Gould shall be entitled to transfer lead and lead-antimony credits among NL plants, provided that the total aggregate amount transferred shall not exceed 488 tons of lead and 12 tons of antimony per month and no transfer to or from any plant location shall exceed 244 tons of lead and 6 tons of antimony in any month. For all transfers between NL plants, NL shall charge Gould $40.00 per ton if the transfer is inter-zone as set forth in Exhibit D and $25.00 per ton if the transfer is intra-zone as set forth in Exhibit D.

9. Inspection and Assay of Lead and Lead-Antimony Alloys. Gould shall inspect and assay each shipment of Finished Products promptly and shall notify NL in writing of any defects in Finished Products or differences between the assay results obtained by Gould and the specifications for the Finished Products with respect to each shipment. If Gould shall not have notified NL of any defect or difference within sixty days from the date that the shipment of Finished Products is delivered F.O.B. NL's plant or prior to use of the Finished Products by Gould, whichever shall occur first, the Finished Products shall be deemed for all purposes to have been in conformity with all specifications.

In the event of any discrepancy, which has been the subject of notification pursuant to this section, a third party assayer agreed upon by Gould and NL and named on Exhibit E, shall assay NL's retention sample of the Finished Products involved using established assay procedures and methods. The results of the assay performed by the third party shall be binding on Gould and NL.

10. Tolling Fee. As compensation for the work and services performed pursuant to this Agreement Gould shall pay NL the following base processing and smelting fees:

Whole Scrap Batteries	$228/ton of recoverable metal content of batteries delivered to NL.
Plant Scrap	
Category a)	$147/ton of scrap delivered to NL
Category b)	$167/ton of scrap delivered to NL

The base processing and smelting fees shall be increased by $5 per ton for each cent by which the average monthly price of lead as quoted in Metals Week shall exceed 32.5 cents per pound as of the month of delivery of scrap to NL. In addition to the base fees set forth above, Gould shall pay NL the following fees for the services specified below:

Production of alloys containing 3.5% antimony or less to Gould's specification.	$20/ton of alloy produced.
Removal of antimony and other metals and minerals to produce soft lead.	$87.50/ton of soft lead produced.

Gould shall retain all credits for antimony removed in the production of soft lead but Gould's tin and arsenic account shall be reduced by the quantity of tin and arsenic removed.

11. Adjustment to Fees. Base processing and smelting fees set forth in Section 10 of this Agreement shall be adjusted as set forth below to reflect changes in the cost of the following fuels and materials in any month during which this Agreement shall be in effect, over the average price for the period April 1, 1976 to March 31, 1977:

Coke. For each change of one point in the Wholesale Price Index published by the United States Department of Labor, Index 1967 = 100 (WPI), Code 052 for coke an adjustment of $.06/ton.

Natural Gas. For each change of one point in WPI, Code 0531-0101 for natural gas an adjustment of $.02/ton.

Propane. For each change of one point from WPI for Code 0532-0103 for propane, an adjustment of $.005/ton.

No. 2 Fuel Oil. For every change of $1.00/gallon in average quotations for a) east coast - Philadelphia; b) Minnesota (Twin Cities South); and c) Indianapolis as published in Oil Daily, an adjustment of $.05/ton.

No. 1 Heavy Melting Scrap Steel. For each change of $1.00/ton in the price of No. 1 Heavy Melting Scrap Steel as published in American Metals Market, an adjustment of $.08/ton.

The delivery date of scrap to NL shall be used in determining whether an adjustment shall be made to fee.

12. Additions of Metals and Minerals. NL shall provide all metals and minerals required to produce lead-antimony alloys for Gould in excess of quantities credited to Gould's account. NL shall charge and Gould shall pay NL for minerals and metals supplied by NL based on the following prices for the month in which shipment is made to Gould.

Lead. NL's average price.

Antimony. RMM Laredo average price as published in Metals Week plus freight.

Tin. Average Composite Tin Price as published in Metals Week.

Arsenic. NL's average price for month of shipment.

Other Metals. NL's average price of metals.

13. Price Controls. If, because of any law, regulation, executive decree or other governmental action, NL is required to reduce any price or fee in effect under this Agreement or is prevented from increasing any price or fee to the extent it wishes pursuant to Sections 10, 11 and 12 of this Agreement, NL shall have the right to terminate this Agreement immediately upon giving written notice to Gould.

14. Warehousing. NL shall store inventory for Gould without charge provided that Gould's inventory at each NL plant, based on lead and antimony content, shall not in any month exceed the lead and antimony content of Finished Products ordered for delivery by Gould at that plant for the two immediately preceeding months by more than ten percent. Gould shall pay NL a warehousing fee of $5.00/ton per month on any quantities of inventory in excess

thereof, commencing May 1, 1977.

15. Payment. Gould shall pay the net amount of NL's invoice within ten days from the date of the invoice.

16. Term. This Agreement shall become effective on the 1st day of April, 1977, and shall remain in effect for a period of one year thereafter.

17. Force Majeure. Neither party shall be liable for non-performance or delay in performance due to any contingency beyond its reasonable control including, but not limited to, acts of God, fires, floods, wars, force of arms, embargoes, labor, production or transportation difficulties, shortage of materials, power, traditionally used fuel, equipment, transportation, or labor, or inability to obtain same without litigation or the payment of penalties, premiums or unusual prices, accidents, explosions, sabotage, civil commotion or riots, court decrees, and adjustment thereof; due to any governmental law, rule, regulation, order request, instruction or injunction, whether valid or invalid (including, but not limited to, priorities, requisitions, allocations, and price adjustment restrictions); or due to the performance by NL of obligations it may voluntarily assume in connection with any priorities or other system for national defense or national or international economic recovery. Upon occurrence of any such contingency, the party affected shall have the right to suspend or reduce deliveries during the period the contingency exists, and the total quantity deliverable under this Agreement shall be reduced by the quantity so omitted.

18. Allocation. In the event of any reduction in plant capacity or shortage of supplies or raw materials, NL may,

without obligation to purchase similar products from other sources, and after satisfying its own requirements, and those of its divisions, subsidiaries and affiliates, allocate the products among its customers, on any basis and in any proportion as shall, in NL's sole judgment, fairly allocate the supply, and Gould releases NL from any liability for failure to deliver the quantity specified in this Agreement.

19. Tax Changes. Any tax or governmental charge becoming effective and payable by NL because of this Agreement including sales tax, use tax, retailer's occupational tax, and gross receipts tax, shall be added to the prices then in effect. These additions shall not constitute a price adjustment.

20. Risk of Loss. Upon delivery by NL of material supplied pursuant to this Agreement to a common carrier or other carrier or vehicle, Gould shall assume the entire risk of damage to and loss of the material from any cause and the risk of delay in transportation and delivery, regardless of the form of bill of lading, and irrespective of whether title to the material has passed to Gould.

21. Safe Handling. Except for periods when scrap and Finished Products are under the exclusive control of NL, Gould shall indemnify and hold NL harmless from any loss cost damage or expense, including reasonable attorney's fees which NL may incur in connection with this Agreement, including compliance with federal, state and local regulations governing unloading, discharge, storage, handling and use of scrap and Finished Products.

22. Containers. Where shipment requires use by NL of carboys, drums, barrels, or other returnable containers, title to the containers shall remain in NL and Gould shall deposit with NL amounts reasonable required by NL to insure the return of the container to the point of shipment. NL containers shall be kept in good condition and shall not be used for any other material and shall be returned to NL within 60 days from the date of shipment. Gould shall comply with ICC regulations requiring empty drums to have filling and vent holes properly closed and empty carboys to be thoroughly and completely drained. Upon return of such containers in good condition, NL shall refund Gould's deposit. Gould shall immediately make NL whole if containers are lost, damaged or not returned within 60 days from date of shipment.

NL shall not be obligated to pay for or return any pallets or containers to Gould. Where practical NL shall return any usable pallets or containers to Gould.

23. Warranties. NL makes only the following warranty as to the material sold and services performed pursuant to this Agreement: That it is of commercial quality; that it conforms to specifications and that Finished Products furnished under NL's specifications shall not infringe the claims of any valid U.S. patent. NL MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF FITNESS OF THE MATERIAL FOR ANY PARTICULAR PURPOSE EVEN IF THAT PURPOSE IS KNOWN TO NL.

24. Limitation of Liability. NL's liability for all damages arising with respect out of or in connection with this Agreement or products supplied pursuant to this Agreement, including liability

for indirect, consequential and special damages, whether based on contract, warranty, negligence or strict liability, shall not exceed the fair market value of the Finished Products as to which liability arises and Gould shall hold NL harmless from any and all losses, costs and expenses in excess thereof.

25. Patent Infringement. Gould shall save NL harmless against any infringement or threatened infringement of any U.S. patent by reason of NL's performance in accordance with product and process specifications prescribed by Gould pursuant to this Agreement and Gould shall indemnify NL for all judgments, decrees, damages, trial costs and trial expenses covered against NL on account of such infringement.

26. Termination. Either party shall have the right to terminate this Agreement immediately by written notice upon the institution of bankruptcy, reorganization, liquidation or receivorship proceedings by or against the other party.

Upon termination or expiration of this Agreement, NL shall complete the processing of all scrap and deliver Finished Products to Gould in accordance with Gould's directions and specifications. Unless otherwise specified by Gould, NL shall be entitled to return to Gould lead, antimony and lead-antimony alloys at NL's discretion. NL shall deliver Finished Products to Gould within a reasonable time consistent with prior performance under this Agreement. Gould shall promptly pay NL all amounts due pursuant to this Agreement.

27. Exhibits. The following Exhibits are attached to and made part of this Agreement:

A - Battery Sampling Procedure

B - Laboratory Sampling Procedure

C - NL Plant Locations

D - Transfer Points for Finished Products

28. Entire Agreement. This Agreement constitutes the entire agreement between the parties, and supercedes all prior understandings, representations, or warranties. No modification of this Agreement shall be valid unless it is in writing signed by the parties. No modification shall be effected by the acknowledgement or acceptance of Gould's purchase order forms or other forms containing different terms or conditions.

29. Assignability. Neither party shall assign this Agreement of its rights under this Agreement, without the written consent of the other party, except that NL shall have the right to assign all or any part of this Agreement in connection with any transfer of its lead smelting operations.

30. Notice. All notices required to be given pursuant to this Agreement shall be in writing and shall be sent by certified or registered mail, return receipt requested to: NL Industries, Inc., Metal Division, P. O. Box 3618, Hightstown, New Jersey 08520. Gould, Inc., P. O. Box 3140, St. Paul, Minnesota 55165.

31. Litigation. In any litigation arising out of the terms of this Agreement, the court shall award to the prevailing party in addition to all other relief the reasonable attorney's fees for counsel for the prevailing party.

AGREED:

NL INDUSTRIES, INC.

By: _____

Title: _____

AGREED:

GOULD INC.

BY: _____

Title: _____

R. Putney

MASTER METALS INC.

SUBSIDIARY OF NATIONAL LEAD CO.

2850 WEST THIRD STREET
CLEVELAND, OHIO 44113

L. H. HERTHNECK
MANAGER

RECEIVED
J. A. MARDICK
APR 14 1970
METAL DIVISION

April 10, 1970

Mr. John W. Bennie, Non-ferrous Metals &
Scrap Purchasing Dept.
Ford Motor Company
The American Road
Dearborn, Michigan

FORD MOTOR CO.

(1970)

Dear Mr. Bennie:

I wish to refer to our several conversations, concerning the questions raised as to a more profitable, convenient or suitable means to handle the scrap lead items generated at your Owosso, Michigan Plant.

Inasmuch as Ford Motor Company is a very substantial national customer of all National Lead Company, I think I should confirm the fact that we customarily quote the very lowest smelting charges possible on the monthly Owosso lead scrap, in order to help maintain that relationship. Current April, 1970, scrap awarded to us in Cleveland was at a $45.00 per ton smelting charge, with a $9.00 per ton freight allowance, on account of your own trucking, Owosso to Cleveland, or a net f.o.b. Cleveland smelting charge of $36.00 per ton. By comparison, you will note from today's American Metal Market that the current scrap metal dealer, in the Chicago area, scrap battery lead smelting charge is quoted at $70-$75 per ton, and New York area, $85-$90 per ton -- f.o.b. smelter! So, I would strongly advise that Owosso continue to submit monthly bids, inasmuch as our intentions are to continue to give them the lowest smelting charge possible, even if that basis continues near the "break even" point!

In regard to "tolling" or "exchanging" Owosso scrap for equivalent M2A48A, I wish to assure you that this would be economically unsound to you, for the following reasons:

About 30% of the lead scrap generated at Owosso originates from lead oxides, which contains no arsenic, tin or antimony. The remainder of the scrap is a mixture of lead alloy/oxide, with an average of approximately .22% tin and .20% arsenic. In other words, your over-all total scrap package would average about .16% tin and .14% arsenic. Inasmuch as your 48A alloy requires an average of .55% tin and .50% arsenic, we would calculate thus:

Tin
.55% in 48A alloy
.16% in scrap
.39% additive -7.8# @ $1.80 per lb. =$14.04 per ton

(Contd.)

Arsenic
.50% in 48A alloy
.14% in scrap
.36% additive = 7.2# @ $0.62 per lb. = 4.46 per ton

Total cost of tin/arsenic additives $18.50 perton

By the time we add our costs of unloading, loading, smelting, refining, internal transportation costs, etc., as well as our normal metallurgical smelting losses, I am sure you will agree we would be far above the net smelting charge of $36.00 quoted you on your April scrap to Cleveland. Most of your plant scrap is utilized by us for alloy end users who do not require the higher tin and arsenic specs.

I wish to comment further concerning the trucking of same scrap. If we were to transport such scrap by commercial trucks, or our own trucks, I am sure the cost would be considerably more than that of your own trucks, because of your large fleet movements inbound/outbound, in the general Cleveland/Detroit area, with and without cargo. If our trucks or commercial trucks had to carry such scrap, we would have no alternative but to add such extra costs (over yours) to the smelting charge quoted you, which would give you a lesser dollar return, than presently.

I again assure you that your present basis is the most advantageous to Ford Motor Company. As further evidence of this statement, nobody has ever quoted a better price on your monthly Owosso scrap bid than ourselves. It is my purpose to serve you to the best of my ability, and that is just what I am doing.

If you have any further questions, or, if any of the above needs clarification, please advise.

Yours very truly,

MASTER METALS INC.

L. H. Northneck,
Manager

LHH:hr
cc: Mr. R. O. McCarthy

M-11A1A
(Formerly M-4A1)

SOLDERS - CHART

"M" No.	SAE No.	Solder Type	Sn	Pb	Zn	Sb	Bi	Remarks
M-1506-B			65.0-67.0	.50	Rem.	.50	.75-1.25	Aluminum Soldering
M-1513-C*			2.5-2.75	Rem.	Trace	4.90-5.40	.25	Lead Base Alloy-Body Filler
M-1519-A	5A	20-80	19.0-20.0	Rem.	.005	.40	.25	Dipping Heater Cores
M-1519-B	5B		19.0-20.0	Rem.	.005	1.25-1.75	.25	Dipping
M-1520		50-50	49.0-51.0	Rem.	.005	.40	.25	Special Electrical
M-1522	2A	40-60	39.0-40.0	Rem.	.005	.40	.25	Electrical Radiator
M-1535		35-65	34.0-35.0	Rem.	.005	.40	.25	General Radiator
M-1538-A	3A	30-70	29.0-30.0	Rem.	.005	.40	.25	Radiator
M-1538-B			29.0-30.0	Rem.	.005	.75-1.25	.25	Fuel Tank
M-1584-B	6B		14.0-15.0	Rem.	.005	.75-1.25	.25	Special Body Work
M-1587		63-37	62.0-64.0	Rem.	.005	.40	.25	Special
M-7501	4A	25-75	24.0-25.0	Rem.	.005	.40	.25	Radiator Tubes

Note 1 All percentages are maximum values unless a range is indicated.

* This alloy contains .40-.60 Arsenic

Impurities	Percent Maximum
Cu	.08
Fe	.02
Al	.005
Total Other Elements	.08