Form Approval
OMB Control No. 2040-0193
Approval Expires 08/31/2001

U.S. ENVIRONMENTAL PROTECTION AGENCY COLLECTION OF 1997 IRON AND STEEL INDUSTRY DATA (SHORT FORM)

Return to:

U.S. ENVIRONMENTAL PROTECTION AGENCY
COLLECTION OF 1997 IRON AND STEEL INDUSTRY DATA
c/o Eastern Research Group, Inc.
14555 Avion Parkway, Suite 200
Chantilly, VA 20151-1102

EPA Iron and Steel Survey Help Line:

Information about Part A: Technical Information
Eastern Research Group, Inc. (800) 357-7075
Internet Electronic Mailing Address steel_helpline@erg.com

Information about Part B: Financial and Economic Information
Eastern Research Group, Inc. (888) 308-9455
Internet Electronic Mailing Address steel_partb@erg.com

ATTACH FACILITY ADDRESS
LABEL HERE

U.S. ENVIRONMENTAL PROTECTION AGENCY
COLLECTION OF 1997 IRON AND STEEL INDUSTRY DATA
PART A: TECHNICAL INFORMATION
(SHORT FORM)

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The public reporting and recordkeeping burden for this survey is estimated to average 60 hours. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid Office of Management and Budget (OMB) control number.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Office of Policy, Planning, and Evaluation, U.S. Environmental Protection Agency, Regulatory Information Division, MC 2137, 401 M St., S.W., Washington, DC 20460. Include the OMB control number in any correspondence. Do not send the completed survey to this address.

U.S. ENVIRONMENTAL PROTECTION AGENCY
COLLECTION OF 1997 IRON AND STEEL INDUSTRY DATA
(SHORT FORM)

PART A: TECHNICAL INFORMATION

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INTRODUCTION

The U.S. Environmental Protection Agency (EPA) is conducting a survey of the Iron and Steel Industry as part of its effort to review and revise, as appropriate, effluent limitations guidelines and standards for this industry. This survey requests data on sites engaged in iron or steel forming and finishing. The technical data collected in Part A of this survey will be used to determine the production rates of industry, use of water for processes, rates of wastewater generation, and the practices of wastewater management, treatment, and disposal. The financial and economic data collected in Part B of this survey will be used to characterize the economic status of the industry and to estimate the possible economic impacts of wastewater regulations.

COMPLETION OF THE SURVEY

The survey is divided into two parts: Part A: Technical Information, and Part B: Financial and Economic Information. Each part has its own general instructions and certification statement. The parts are divided into the following sections:

PART A: TECHNICAL INFORMATION

SECTION 1:	GENERAL SITE INFORMATION
SECTION 2:	MANUFACTURING PROCESS INFORMATION
SECTION 3:	IN-PROCESS AND END-OF-PIPE WASTEWATER TREATMENT AND OUTFALL INFORMATION

PART B: FINANCIAL AND ECONOMIC INFORMATION

SECTION 1:	SITE IDENTIFICATION AND FINANCIAL INFORMATION

Each section should be completed by the person(s) most knowledgeable about the information requested. All sites must have the corporate official or designee responsible for directing or supervising Part A: Technical Information of the survey response sign the Certification Statement (located on page iii) to verify and validate the information provided, or to certify that this site does not engage in iron or steel forming or finishing.

EPA has prepared this survey to be applicable to a variety of processes and operations; therefore, not all of the questions will apply to each site. Complete each applicable item in the survey. You are not required to perform nonroutine tests or measurements solely for the purpose of responding to this survey. In the event that exact data are not available, provide best engineering estimates and note the methods that were used to make the estimates on the Comments page located at the end of each section. General instructions are provided on page v, and additional instructions are provided as needed with each question. A complete set of definitions for Part A can be found in the Definitions Section, starting on page vi.

If you would like to request a WordPerfect 6.1 version of the survey instrument, you must do so **in writing** within 30 days of receipt of this survey (see address under **WHERE TO RETURN THE SURVEY** on page iii). You are responsible for submitting a properly formatted hard copy of the survey by the due date which matches this survey's format. The electronic formatting of this survey is complex and may require more experienced clerical support. **Improperly formatted survey responses will be returned to the respondent!**

EPA IRON AND STEEL SURVEY HELP LINES

Information About Part A: Technical Information

Eastern Research Group, Inc. . . . . (800) 357-7075
Internet Electronic Mailing Address . . . . . steel_helpline@erg.com

Information About Part B: Financial and Economic Information

Eastern Research Group, Inc. . . . . (888) 308-9455
Internet Electronic Mailing Address . . . . . steel_partb@erg.com

AUTHORITY

This survey is conducted under authority of Section 308 of the Clean Water Act (Federal Water Pollution Control Act, 33 U.S.C. Section 1318). **All sites that receive this survey must respond to it**. Return all portions of the survey to the EPA **within 90 days** of receiving it. Late filing or failure to comply with these instructions may result in criminal fines, civil penalties, and other sanctions, as provided by law.

If you wish to request an extension for your site or discuss a delivery schedule for a company with multiple sites, you must do so **in writing** within 30 days of receipt of this survey. Send written requests to:

Mr. George Jett
U.S. Environmental Protection Agency (4303)
401 M Street, SW
Washington, DC 20460

Extension requests will be evaluated on a case-by-case basis. Submittal of an extension request to EPA does **not** alter the due date of your survey.

Some sites will also receive a Production, Analytical Data, and/or Wastewater Treatment Capital Cost Follow-Up Survey. Each of these surveys will be sent to approximately 100 sites. These sites will be chosen based on responses to this survey. Your site may receive one or all of these follow-up surveys. EPA estimates the average burden for each of these surveys at about 10 hours. Responses to the follow-up surveys will be due **within 45 days** of receipt.

PROVISIONS REGARDING DATA CONFIDENTIALITY

Regulations governing the confidentiality of business information are contained in the Code of Federal Regulations (CFR) at Title 40 Part 2, Subpart B. You may assert a business confidentiality claim covering part or all of the information you submit, other than effluent data, as described in 40 CFR 2.203(b):

> "(b) *Method and time of asserting business confidentiality claim.* A business which is submitting information to EPA may assert a business confidentiality claim covering the information by placing on (or attaching to) the information, at the time it is submitted to EPA, a cover sheet, stamped or typed legend, or other suitable form of notice complying language such as `trade secret,' `proprietary,' or `company confidential.' Allegedly confidential portions of otherwise nonconfidential documents should be clearly identified by the business, and may be submitted separately to facilitate identification and handling by EPA. If the business desires confidential treatment only until a certain date or until the occurrence of a certain event, the notice should so state."

If no business confidentiality claim accompanies the information when it is received by EPA, EPA may make the information available to the public without further notice.

You may claim as confidential all information included in the response to a question by checking the Confidential Business Information (CBI) box next to each question number for which responses contain CBI. Alternatively, all questions in this survey marked with a CBI check box may be claimed confidential now by checking the box at the end of this paragraph. If you do not check this box, any individual response where "CBI" is **NOT** checked will be considered nonconfidential. Note that you may be required to justify any claim of confidentiality at a later time. Note also that plant effluent data are not eligible for confidential treatment, pursuant to Section 308(b) of the Clean Water Act, and thus will be treated as nonconfidential even if the "all CBI" box is checked. **All Eligible Data are CBI** G

Information covered by a claim of confidentiality will be disclosed by EPA only to the extent of, and by means of, the procedures set forth in 40 CFR Part 2, Subpart B. In general, submitted information protected by a business confidentiality claim may be disclosed to other employees, officers, or authorized representatives of the United States concerned with implementing the Clean Water Act.

Information covered by a claim of confidentiality will be made available to EPA contractors under EPA Contract Numbers 68-C6-0044, 68-C6-0022, and 68-C4-0046 to enable the contractors to perform the work required by their contracts with EPA. All EPA contracts provide that contractor employees use the information only for the purpose of performing the work required by their contracts and will not disclose any CBI to anyone other than EPA without prior written approval from each affected business or from EPA's legal office. Any comments you may wish to make on this issue must be submitted in writing along with your completed survey.

WHERE TO RETURN THE SURVEY

After completing the survey and certifying the information that it contains, use the enclosed mailing label to mail the completed survey to:

U.S. Environmental Protection Agency
Collection of 1997 Iron and Steel Industry Data
c/o Eastern Research Group, Inc.
14555 Avion Parkway, Suite 200
Chantilly, VA 20151-1102

Retain a copy of the completed survey, including attachments. EPA will review the information submitted and may request your cooperation in answering follow-up questions, if necessary, to complete analyses.

CERTIFICATION STATEMENT FOR PART A

Is your site engaged in iron or steel forming or finishing?

G Yes (Complete Part A: Technical Information of the survey; sign Certification #1 below when Part A has been completed)

G No (Sign Certification #2 below and return the following to USEPA at the given address: Pages iii and iv and the cover page of Part A containing the site address label)

When Part A of the survey has been completed or "No" has been checked above, the individual responsible for directing or supervising the preparation of this part must read and sign the appropriate Certification Statement listed below. The certifying official must be a responsible corporate official or his/her authorized representative.

Certification Statement #1

I certify under penalty of law that Part A: Technical Information of the enclosed survey response was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. The information submitted is, to the best of my knowledge and belief, accurate and complete. In those cases where we did not possess the requested information, we provided best engineering estimates in response to the questions. We have to the best of our ability indicated what we believe to be company confidential business information as defined under 40 CFR Part 2, Subpart B. We understand that we may be required at a later time to justify our claim in detail with respect to each item claimed confidential. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment as explained in Section 308 of the Clean Water Act.

Signature of Certifying Official

Date

Printed Name of Certifying Official

( ) Telephone Number

Title of Certifying Official

Certification Statement #2

I certify under penalty of law that this site does not engage in iron or steel forming or finishing. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment as explained in Section 308 of the Clean Water Act.

If you are certifying that your site is not engaged in iron or steel forming or finishing, indicate the classification of your site.

G Warehouse
G Office
G Distribution
G Other (specify): _____

Signature of Certifying Official

Date

Printed Name of Certifying Official

( ) Telephone Number

Title of Certifying Official

GENERAL INSTRUCTIONS

Complete this survey for your entire site. A site is one contiguous physical location at which manufacturing operations related to the iron and steel industry occur. In some instances, a site may include properties located within separate fence lines, but located close to each other.

Mark responses for each question. Fill in the appropriate response(s) to each question. Use **black ink** or **type** in the spaces provided. If the space allowed for the answer to any question is inadequate for your complete response, continue the response in the Comments area at the end of the survey, cross-referencing the appropriate section and question number. If additional attachments are required to clarify a response, place the associated question number and your site ID number (shown on the cover page of Part A) in the upper right corner of each page of the attachments.

Answer all questions unless instructed otherwise. The purpose of this survey is to gather all available information pertinent to iron and steel operations. Answer the questions in sequence unless you are directed to SKIP. Report only whole numbers, unless instructed otherwise. If a question is not applicable to your facility, write "NA". As noted throughout the survey, you are required to provide best engineering estimates when data are not readily available. If you provide an estimate, note the methods that were used to make the estimates on the Comments page at the end of the survey. EPA does not intend for sites to conduct detailed studies to obtain the data. If you feel you need to conduct a detailed study, please call the Technical Information Help Line at (800) 357-7075 or email your questions to steel_helpline@erg.com.

Attach process flow diagrams (PFDs) to the survey. In order to understand your site's overall process, EPA is requiring that you include PFDs. Write the site ID number (shown on the cover page of Part A) on each diagram, and number each PFD in the upper right corner, starting with "PFD-1", numbering each sequentially. More than one manufacturing process, wastewater treatment operation, and/or wastewater discharge location may be shown on the same PFD. Questions requesting diagrams of operations or discharge locations will also request the PFD number. If the operation or discharge location has already appeared in a previously provided diagram, then only the PFD number is required. In each section where PFDs are requested, a checklist of information and a sample diagram are provided. Use these items to ensure that your diagrams are complete. If a PFD should be treated as confidential, stamp it "Confidential" or write "Confidential" or "CBI" across the top. If any diagram is not marked "Confidential", it will be considered nonconfidential under EPA's confidentiality procedures set forth in 40 CFR Part 2, Subpart B.

Some PAGES in the survey will likely need to be photocopied before you respond. Indicate how many copies of the page you are submitting by completing the entry "Copy _____ of _____" in the top right corner.

Some SECTIONS in the survey will likely need to be photocopied before you respond. Indicate how many copies of the section you are submitting by completing the entry "Section Copy _____ of _____" at the top of each page.

Pay close attention to the measurement units requested (e.g., gallons, tons) in each question. Be careful to provide data in the requested units. **Note that, in all cases, "tons" refers to "short tons" (2,000 pounds).**

Retain a copy of the completed survey for your records. EPA will review the information submitted and may request, if necessary, your cooperation in answering follow-up clarification questions to complete the data collection effort. Retain a copy of the completed survey, including attachments, in case you (i.e., the contact identified in Question 1-3) are contacted to clarify your responses. Also, please maintain a record of sources used to complete the questions.

DEFINITIONS

Acid Cleaning. Treatment of steel surfaces with relatively mild acid solutions for purposes of removing surface dirt and light oxide coatings. Scale and/or heavy oxide removal is considered acid pickling (see below). Acid cleaning operations are typically conducted for surface preparation prior to application of hot dip or electrolytic metal coating and after cold forming and annealing operations.

Acid Pickling. Scale and/or oxide removal from steel surfaces using relatively strong acid solutions. Acid pickling operations are typically conducted after hot forming operations and prior to subsequent steel finishing operations (e.g., cold forming, annealing, alkaline cleaning, metal coatings).

Acid Regeneration. Treatment of spent acid solutions by thermal and/or chemical means to produce usable acid solutions and iron-rich by-products.

Alkaline Cleaning. Application of solutions containing caustic soda, soda ash, alkaline silicates, or alkaline phosphates to a metal surface primarily for removing mineral deposits, animal fats, and oils.

Alloy. A substance that has metallic properties and is composed of two or more chemical elements of which at least one is a metal.

Alloy Steel. Steel is classified as alloy when the maximum of the range given for the content of alloying elements exceeds one or more of the following: manganese, 1.65%; silicon, 0.60%; copper, 0.60%; or in which a definite range or a definite minimum quantity of any of the following elements is specified or required within the limits of the recognized field of constructional alloy steels: aluminum, boron, chromium (less than 10%), cobalt, lead, molybdenum, nickel, niobium (columbium), titanium, tungsten, vanadium, zirconium, or any other alloying element added to obtain a desired alloying effect.

Annealing. A heat treatment process in which steel is exposed to an elevated temperature in a controlled atmosphere for an extended period of time and then cooled. Annealing is performed to relieve stresses; increase softness, ductility, and toughness; and/or to produce a specific microstructure in the steel.

Baghouse. A dry air pollution control device comprising an enclosure containing multiple fabric filter elements (bags) for removal of particulate matter from gas streams.

Bar. Produced from ingots, blooms, or billets covering the following range: Rounds, 3/8 to 8-1/4 inches inclusive; Squares, 3/8 to 5-1/2 inches; Round-cornered squares, 3/8 to 8 inches inclusive; Hexagons, 1/4 to 4-1/16 inches inclusive; Flats, 13/64 inches and over in specified thicknesses and not over 6 inches specified width.

Billet. A semi-finished piece of steel formed by casting or from hot rolling an ingot or a bloom. It may be square, but is never more than twice as wide as thick. Its cross-sectional area is usually not more than 36 square inches.

Blowdown. The partial discharge of water from a recirculating process or cooling water system for purposes of correcting hydraulic imbalances in the recirculating system or to control concentrations of substances in the recirculating water.

Building Evacuation. Control of process and fugitive air emissions from an entire building (e.g., total building evacuation for a pickling house).

Butt-Welded Pipe/Tube. A continuous strip of hot-rolled skelp which is heated, formed into a circular shape, and then welded to form the pipe or tube.

Carbon Steel. Steel which owes its properties chiefly to various percentages of carbon without substantial amounts of other alloying elements. Steel is classified as carbon steel when no minimum content of elements other than carbon is specified or required to obtain a desired alloying effect and when the maximum content for any of the following do not exceed the percentage noted: manganese, 1.65%; silicon, 0.60%; copper, 0.60 percent.

Categorical Pretreatment Standards. Standards for discharges of pollutants to POTWs promulgated by EPA, in accordance with Section 307 of the Clean Water Act, that apply to specific process wastewater discharges from particular industrial categories (40 CFR 403.6 and 40 CFR 405 - 471).

Clarifier. A wastewater treatment unit, usually in the form of a circular, cone-bottom steel or concrete tank with a center stilling well and mechanical equipment at the bottom for settling and subsequent removal of suspended solids from the wastewater stream. Clarifiers may also be equipped with surface skimming devices for removal of floating materials and oil.

Cold Forming. Also known as cold working; a forming operation in which the shape of the metal piece is changed by plastic deformation at a temperature below that at which recrystallization occurs. The plastic deformation can be effected by forging, rolling, extrusion, or drawing.

Contract Haul. Collection of wastewater or sludge by a private disposal service, scavenger, or purveyor in containers for subsequent transportation, treatment, and disposal off site.

Deep-Well Injection. Long-term or permanent disposal of untreated, partially treated, or treated wastewaters by pumping the wastewater into underground formations of suitable character through a bored, drilled, or driven well.

Descaling. The process of removing scale from the surface of steel. The most common method of descaling is to crack the scale by use of roughened rolls and a forceful water spray (see also salt bath descaling).

Drawing. A forming operation whereby deformation of the metal is accomplished by pulling the material through a die by means of a tensile force applied on the exit side.

Dry Air Pollution Control Equipment. Control equipment in which gases are cleaned without the use of water.

DSCFM. Dry standard cubic feet per minute. A standard unit for measuring gas flow.

Effluent Limitations Guidelines and Standards. Regulations promulgated by U.S. EPA under authority of Sections 301, 304, 306 and 307 of the Clean Water Act that set out minimum, national technology-based standards of performance for point source wastewater discharges from specific industrial categories (e.g., iron and steel manufacturing plants). Effluent limitations guidelines and standards regulations are implemented through the NPDES permit and national pretreatment programs and include the following:

- Best Practicable Control Technology Currently Available (BPT)
- Best Available Technology Economically Achievable (BAT)
- Best Conventional Pollutant Control Technology (BCT)
- New Source Performance Standards (NSPS)
- Pretreatment Standards for Existing Sources (PSES)
- Pretreatment Standards for New Sources (PSNS)

The pretreatment standards (PSES, PSNS) are applicable to industrial facilities with process wastewater discharges to publicly owned treatment works (POTWs). The effluent limitations guidelines and new source performance standards (BPT, BAT, BCT and NSPS) are applicable to industrial facilities with direct discharges of process wastewaters to waters of the United States.

Electric-Resistance-Welded Pipe/Tube. Pipe or tube formed from a plate or continuous strip of steel which is formed into a circular shape and welded together by the application of pressure and electrical energy. Heat is generated by the resistance to current flow (either transformed or induced) across the seam during welding.

Electrostatic Precipitator (ESP). An air pollution control device that imparts an electrical charge on solid particles in the gas stream which are then attracted to an oppositely charged collector plate. The collector plates are intermittently rapped to discharge the collected dust to a hopper below.

Extrusion. A forming operation whereby a material is forced, by compression, through a die orifice.

Filtration. The passage of fluid through a porous medium to remove matter held in suspension.

Finishing. Term used to generically describe steel processing operations conducted after hot forming (e.g., acid pickling, scale removal, cold forming, annealing, alkaline cleaning, hot coating, and electroplating).

Flume Flushing. Process by which mill scale collected under hot forming mills and runout tables of continuous casters is transported with water to scale pits for subsequent recovery.

Forging. A forming operation in which a metal piece is shaped by hammering.

Forming. Operations in which the shape of a metal piece is changed by plastic deformation. Examples include forging, rolling, extrusion, and drawing.

Fundamentally Different Factors Variance, CWA Section 301(n). The Administrator, with the concurrence of the State, may establish an alternative requirement under Section 301(b)(2) or Section 307(b) of the Clean Water Act for a facility that modifies the requirements of national effluent limitation guidelines or categorical pretreatment standards that would otherwise be applicable to such facility, if the owner or operator of such facility demonstrates to the satisfaction of the Administrator that the facility is fundamentally different with respect to the factors (other than cost) specified in Section 304(b) or 304(g) and considered by the Administrator in establishing such national effluent limitation guidelines or categorical pretreatment standards.

Galvanizing. Application of zinc to the surface of steel primarily for the purpose of corrosion protection. Zinc may be applied by passing precleaned steel through a molten zinc bath (hot dip galvanizing) or electrochemically (electrogalvanizing).

Ground Water. Water in a saturated zone or stratum beneath the surface of land or water.

Hot Coating. Operations including immersion of precleaned steel into baths of molten metal. Common metal types include: tin, zinc (galvanizing), combinations of lead and tin (terne coating), and combinations of aluminum and zinc (galvalume® coating). Hot coating is typically used to improve resistance to corrosion, and for some products, to improve appearance and paintability.

Hot Forming. Also known as hot working; a forming operation in which the shape of the metal piece is changed by plastic deformation at a temperature above that at which recrystallization occurs. The plastic deformation can be effected by forging, rolling, extrusion, or drawing.

Incineration. A controlled combustion process most commonly used for destruction of solid, liquid, or gaseous wastes.

Landfill Leachate. Water or ground water collected from that portion of a solid or hazardous waste landfill containing disposed solid or hazardous wastes.

Noncontact Cooling Water. Water used for cooling in process and nonprocess applications which does not come into contact with any raw material, intermediate product, by-product, waste product (including air emissions), or finished product.

NPDES Program. The National Pollutant Discharge Elimination System (NPDES) program authorized by Sections 307, 318, 402, and 405 of the Clean Water Act which applies to facilities that discharge wastewater directly to United States surface waters.

Oil Skimmer. A device which skims the top surface of wastewater for the purpose of removing floating oil.

Operable Unit. Any on-site unit which is either: (1) currently operating; or (2) idle, but not permanently shut down. Units may be idle for reasons such as market conditions, production outages, maintenance and rebuilding, or labor disputes.

Pipe. A hollow, cylindrical product distinguished from tube by heavier wall thickness. Pipe is usually measured by its inside diameter. Tube is generally measured by outside diameter.

Plant Service Water. City, well, or surface water which has not been used elsewhere on site (i.e., water prior to its use in a process or operation).

Plate. A flat-rolled finished steel product within the following size and/or weight limitations:

Width	Thickness
over 48 inches wide	0.180 inches or thicker
between 8 and 48 inches inclusive	0.230 inches or thicker
over 48 inches wide	7.53 lb/sq ft or heavier
between 8 and 48 inches inclusive	9.62 lb/sq ft or heavier

Potable Water. Water which can be consumed; drinking water.

Privately Owned Treatment Works (PrOTW). Any device or system owned and operated by a private entity and used for storage, treatment, recycling, or reclamation of liquid industrial wastes.

Process Wastewater. Any water which, during manufacturing or processing, comes into direct contact with or results from the storage, production, or use of any raw material, intermediate product, finished product, by-product, or waste product. Wastewater from slag quenching, equipment cleaning, direct-contact air pollution control devices, rinse water, storm water associated with industrial activity, and contaminated cooling water are considered process wastewater. Process wastewater may also include wastewater that is contract hauled for off-site disposal. Sanitary wastewater, uncontaminated noncontact cooling water, and storm water not associated with industrial activity are not considered process wastewater.

Publicly Owned Treatment Works (POTW). Any device or system owned and operated by a public entity and used in the storage, treatment, recycling, or reclamation of liquid municipal sewage and/or liquid industrial wastes. The sewerage system that conveys wastewaters to treatment works is considered part of the POTW.

Quenching. A process of rapid cooling from an elevated temperature by contact with liquids, gases, or solids.

Reheat Furnace. A gas-fired, refractory-lined furnace used for heating steel shapes for subsequent hot forming operations.

Reversing Mill. A rolling mill in which a piece of steel (e.g., plate, strip, or sheet) alternately passes through work rolls in both directions to achieve the desired thickness reduction.

Rod. A hot-rolled steel section, usually round in cross-section, produced as a final product or as an intermediate product for subsequent production of wire and wire products.

Rolling. A forming operation that reduces the thickness of a metal piece by passing it between two or more rolls.

Roughing Stand. The rolls used for breaking down the ingot, billet, or slab in the preliminary rolling of metal products.

Runout Table. Area of a hot strip mill located after the finishing stands and before the coilers where laminar-flow cooling is applied to the strip. Generally, for any hot forming mill, this area of the mill is downstream of the last stand of work rolls. For continuous casters, this area of the process is after the torch cut-off.

Salt Bath Descaling. The aggressive physical and chemical removal of heavy scale from semi-finished specialty and high-alloy steels with molten salt baths or solutions containing neutral or acidic salts.

Scale. Iron oxides which form on the surface of hot steel when the steel is exposed to an oxidizing atmosphere.

Scale Pit. An in-ground rectangular (and in some instances, circular) basin constructed of concrete for recovery of scale from process wastewaters used in hot forming and continuous casting operations. Collected scale is mechanically removed and recovered for recycle through a sinter plant or for sale as a by-product.

Scarfing. Removal of imperfections on the surface of semi-finished steel shapes by the use of oxygen/acetylene torches.

Seamless Pipe/Tube. Tubular product produced by piercing (a hot forming process), which is followed by further processing to achieve correct wall and size dimensions, or by extrusion for small diameter products.

Sheet. Steel produced in coils or in cut lengths within the following size limitations:

Width	Thickness
between 12 and 48 inches inclusive	0.1800 to 0.2299 inch
over 12 inches	0.0449 to 0.1799 inch

Site. A site is generally one contiguous physical location at which manufacturing operations related to the iron and steel industry occur. This includes, but is not limited to, cokemaking, ironmaking, steelmaking, rolling, and finishing. In some instances, a site may include properties located within separate fence lines, but located close to each other.

Skelp. Flat, hot-rolled steel strip or sheet used to manufacture welded pipe or tube products.

Sludge Dewatering. The mechanical or natural processes for removal of free water from wastewater sludges. Mechanical equipment used for sludge dewatering may include rotary or leaf vacuum filters, filter presses, or belt filters. Wastewater sludges may be dewatered naturally in sludge drying beds.

Specialty Steel. Steel products containing alloying elements which are added to enhance the properties of the steel product when individual alloying elements (e.g., aluminum, chromium, cobalt, columbium, molybdenum, nickel, titanium, tungsten, vanadium, zirconium) exceed 3% or the total of all alloying elements exceeds 5 percent.

Stainless Steel. A trade name given to alloy steel that is corrosion and heat resistant. The chief alloying elements are chromium, nickel, and silicon in various combinations with possible small percentages of titanium, vanadium, and other elements. By American Iron and Steel Institute (AISI) definition, a steel is called "stainless" when it contains 10% or more chromium.

Steel. A hard, tough metal composed of iron alloyed with carbon and other elements to enhance hardness and resistance to rusting.

Strip. Steel produced in coils or in cut lengths within the following size limitations:

Width	Thickness
up to 3-1/2 inches inclusive	0.0255 to 0.2030 inch inclusive
between 3-1/2 and 6 inches inclusive	0.0344 to 0.2030 inch inclusive
between 6 and 12 inches inclusive	0.0449 to 0.2299 inch inclusive

Surface Water. Waters of the United States as defined at 40 CFR 122.2.

Tandem Mill. A mill with a number of stands in succession, generally a cold rolling mill.

Temper Rolling. Relatively light cold rolling process (< 1% thickness reduction) performed to improve flatness, alter the mechanical properties of the steel, and minimize surface disturbances. Temper mills are usually single-stand mills.

Tube. A hollow, cylindrical product distinguished from pipe by thinner wall thickness. Tube is usually measured by its outside diameter. Pipe is generally measured by inside diameter.

Utility Operations. The ancillary operations at a steel mill necessary for mill operations, but not part of a production process (e.g., steam production in a boiler house; power generation; boiler water treatment; intake water treatment).

Venturi Scrubber. A wet air pollution control device that operates by causing intermixing of particulates in a gas stream and water applied to the scrubber. The intermixing is accomplished by rapid contraction and expansion of the gas stream and a high degree of turbulence in the throat of the scrubber.

Wastewater. See Process Wastewater.

Wastewater Treatment. The processing of wastewater by physical, chemical, biological, or other means to remove specific pollutants from the wastewater stream or to alter the physical or chemical state of specific pollutants in the wastewater stream. Treatment is performed for discharge of treated wastewater, recycle of treated wastewater to the same process which generated the wastewater, or for reuse of the treated wastewater in another process.

Wet Air Pollution Control Equipment. Venturi, orifice plate, or other units used to bring water into intimate contact with contaminated gas for the purpose of contaminant removal from the gas stream.

Wire. Small diameter steel section produced by cold drawing rod through one or more dies.

Zero Discharge or Alternative Disposal Methods. Disposal of process and/or nonprocess wastewaters other than by direct discharge to a surface water or by indirect discharge to a POTW or PrOTW. Examples include incineration, deep well injection, and contract hauling.

SECTION 1

GENERAL SITE INFORMATION

GENERAL INSTRUCTIONS

This section of the survey is designed to collect general site information. The type of information requested includes site address; site and company contacts; and process operations at your site.

In order to understand the overall process, EPA is requiring in Question 1-7 that you provide a process flow diagram (PFD) showing the major manufacturing operations at your site. Because you will be asked to provide several PFDs with the survey, number each PFD in the upper right corner, starting with "PFD-1", and numbering each sequentially. Make sure your site ID number (shown on the cover page of Part A) is on each diagram.

Provide data in the requested units. Note that, in all cases, "tons" refers to "short tons" (2,000 pounds).

Refer to the Definitions Section for terms which are used in this survey.

If a particular part of the required information is not applicable to your site, enter "NA" rather than leaving the answer blank. Enter zero where appropriate. Do not leave an entry blank if the answer is zero.

If you have any comments on a question or you feel an answer needs clarification, use the Comments page at the end of the survey. Be sure to cross-reference your comments by question number.

If you have any questions regarding the completion of this survey, contact the Technical Information Help Line at (800) 357-7075 or email your questions to steel_helpline@erg.com.

Indicate information which should be treated as confidential by checking the Confidential Business Information (CBI) box next to each question number with responses containing CBI. Any response where "CBI" is not checked will be considered nonconfidential. Refer to the instructions given in the PROVISIONS REGARDING DATA CONFIDENTIALITY section on page ii for additional information regarding EPA's confidentiality procedures set forth in 40 CFR Part 2, Subpart B. For this section, the CBI boxes begin with Question 1-5.

1-1. If the site mailing address shown on the cover page for "Part A: Technical Information" is correct, check (✓) the box below. If it is not the correct address for this site, provide the correct site name and address in the spaces provided below.

G Address on cover page is correct (SKIP to Question 1-2)

Company Name

Subsidiary Name (if any)

Site or Plant Name

Site Address or P.O. Box

Site Address continued

City

State Zip Code

1-2. If the street (i.e., physical) address of your site is different from the mailing address on the cover page or given in Question 1-1, provide the street address in the spaces provided below. If the mailing address and street address are the same, check (✓) the box below.

G Address on cover page or response to Question 1-1 is physical address.

Street Address

Street Address continued

City

State Zip Code

1-3. Provide the names, titles, telephone numbers, and facsimile numbers of the primary and secondary contacts at your site for information supplied in Part A of this survey.

Primary Contact Name

Primary Contact Title

( ) Telephone Number

( ) Facsimile Number

Secondary Contact Name

Secondary Contact Title

( ) Telephone Number

( ) Facsimile Number

1-4. What year did operations begin at your site? If unknown, estimate the date to the nearest year. Operations are any processes related to the iron and steel industry and not necessarily operations as they are currently performed. _____

G CBI **1-5.** Provide for each manufacturing process and subprocess the number of operable units at your site and the number of units that were operated during all or part of **1997**. If you do not have an operable process or subprocess on site, enter "0" in the third column. If you did not have a process or subprocess operated during **1997**, enter "0" in the fourth column.

If the number of units that were operated during **1997** is less than the number of operable units on site, please note the reason for this on the Comments page at the end of this survey.

If you have not received a survey section that corresponds with an operable process or sub-process you have on site, please contact the Technical Information Help Line at (800) 357-7075.

Operable Unit. Any on-site unit which is either: (1) currently operating; **OR** (2) idle, but not permanently shut down. Units may be idle for reasons such as market conditions, production outages, maintenance and rebuilding, or labor disputes.

Manufacturing Process	Subprocess	Number of Operable Units On Site	Number of Units Operated During 1997	Complete the following sections for each operable unit on site
Hot Forming Pipe and Tube	Seamless mills (piercing)			
	Butt-welding mills			
Hot Forming (other operations)	Rolling mills			
	Extrusion operations			
	Drawing operations			
	Forging operations			2A
Cold Forming Pipe and Tube (electric-resistance-welded) Operations				
Cold Forming (other operations)	Rolling mills			
	Extrusion operations			
	Drawing operations			
	Forging operations			
Acid Pickling	Sulfuric acid pickling lines			
	Hydrochloric acid pickling lines			
	Nitric acid pickling lines			
	Nitric/hydrofluoric acid pickling lines			2B
	Hydrofluoric acid pickling lines			
	Other *(specify)*:			
Acid Regeneration Plants				

1-5. (cont.) Provide for each manufacturing process and subprocess the number of operable units at your site and the number of units that were operated during all or part of **1997**. If you do not have an operable process or subprocess on site, enter "0" in the third column. If you did not have a process or subprocess operated during **1997**, enter "0" in the fourth column.

Process	Subprocess	Number of Operable Units On Site	Number of Units Operated During 1997	Complete the following sections for each operable unit on site
Descaling	Kolene® molten salt bath			
	Hydride® molten salt bath			
	Electrolytic sodium sulfate lines			
	Other *(specify)*:			
Continuous Annealing Lines				
Stand-Alone (not performed in conjunction with another operation) Alkaline Cleaning Lines				
Hot Dip Coating	Zinc (galvanize) lines			
	Aluminum lines			
	Aluminum/zinc alloy lines			
	Tin/lead alloy (terne) lines			
	Other *(specify)*:			2B
Electroplating	Zinc lines			
	Chromium lines			
	Tin lines			
	Zinc/nickel alloy lines			
	Other *(specify)*:			
Other Surface Treatment Lines *(specify)*:				
Other Surface Treatment Lines *(specify)*:				

G CBI **1-6.**a. Does your site pretreat intake water prior to use in manufacturing processes?

G Yes

G No

G CBI b. Does your site generate steam for on site use?

G Yes

G No

G CBI c. Does your site generate power for on site use?

G Yes

G No

G CBI **1-7.** Attach one or more general process flow diagrams (PFD) that show the production process(es) and the final products. You are **NOT** required to create a new PFD if an existing diagram will suffice. Number the diagrams in the upper right corner, and include your site ID number (as shown on the cover page of Part A). Specific instructions for including the PFD(s), along with an example diagram, are provided below.

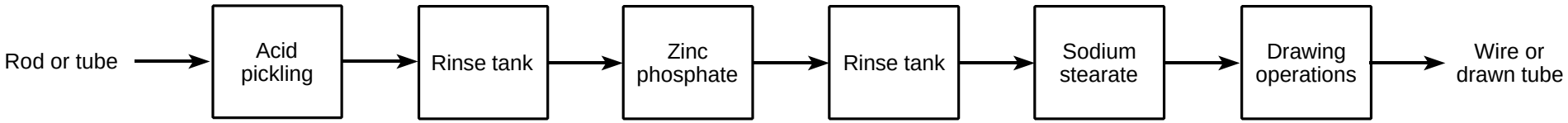
Provide below the PFD number(s) assigned to the production process flow diagram(s). On the diagram(s), be sure to show the processes performed at your site, the major inputs into each process, and the final products which are produced. Review the process flow diagram checklist provided below. If you need assistance, call the Technical Information Help Line at (800) 357-7075.

PFD(s)-_____

Process Flow Diagram Checklist

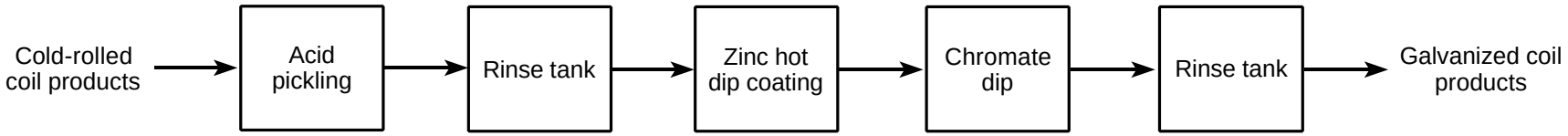
Be sure...	✓
All processes on site are included.	**G**
The diagram of each production process includes the input of your starting materials (e.g., rod, tube, sheets), the flow of the material through the processes, and the final products shipped.	**G**
All processes are labeled.	**G**
All products produced at your site are indicated and labeled.	**G**
The PFD number(s) and your site ID number have been written on each diagram(s).	**G**
If you believe that a diagram should be treated as confidential, stamp it "Confidential" or write "Confidential" or "CBI" across the top. If any diagram is not marked "Confidential", it will be considered nonconfidential under 40 CFR Part 2, Subpart B.	**G**

Site ID **XXXX**
PFD **1**



I. Drawing Operation

II. Cold Forming



III. Hot Dip Coating

Production Process
Example Process Flow Diagrams

SECTION 2

MANUFACTURING PROCESS INFORMATION

GENERAL INSTRUCTIONS

This section of the survey is organized into multiple subsections based on manufacturing operations. **You only need to complete those subsections which apply to this site.** Responses to Question 1-5 in Section 1 can be used to indicate if Section 2A and/or Section 2B should be completed. Section 2C should be completed by all sites. The following is a list of the subsections:

- 2A Forming Operations
- 2B Surface Treatment
- 2C Pollution Prevention Practices (Including Waste Reduction and Process Recycling)

Carefully read the instructions that appear in each subsection and refer to the Definitions Section for terms which are used in this survey. Some **QUESTIONS** may need to be photocopied before responding if your site has multiple processes of the same type (e.g., wet air pollution control devices). For copied pages, number the copies using the space provided in the upper right corner of the page. Some **SECTIONS** may need to be photocopied before responding if your site has multiple processes or mills of the same type (e.g., hot forming mills, cold forming mills). For copied sections, number the copies using the space provided at the top of the pages.

In order to understand the overall process, EPA is requiring in each subsection that you attach to the survey a production process flow diagram (PFD) for each manufacturing process on site. You are **NOT** required to create a new PFD if an existing diagram will suffice. Because you are asked to attach several PFDs to the survey, number each PFD in the upper right corner, starting with "PFD-1", and numbering each sequentially. If you have already started numbering PFDs, use the next number in the sequence. Make sure your site ID number (shown on the cover page of Part A) is on each diagram.

Provide data in the requested units. Note that, in all cases, "tons" refers to "short tons" (2,000 pounds).

If a particular part of the required information is not applicable to your site, indicate by "NA" rather than leaving the answer blank. Enter zero where appropriate. Do not leave an entry blank if the answer is zero.

You are required to provide best engineering estimates when data are not readily available. If you provide an estimate, note the methods that were used to make the estimates on the Comments page at the end of the survey.

If you have any comments on a question or you feel an answer needs clarification, use the Comments page at the end of the survey. Be sure to cross-reference your comments by question number.

If you have any questions regarding the completion of this section of the survey, contact the Technical Information Help Line at (800) 357-7075 or email your questions to steel_helpline@erg.com.

Indicate information which should be treated as confidential by checking the Confidential Business Information (CBI) box next to each question number for which responses contain CBI. Any response where "CBI" is not checked will be considered nonconfidential. Refer to the instructions given in the PROVISIONS REGARDING DATA CONFIDENTIALITY section on page ii for additional information regarding EPA's confidentiality procedures set forth in 40 CFR Part 2, Subpart B.

SECTION 2A. FORMING OPERATIONS

TECHNICAL INFORMATION HELP LINE: (800) 357-7075

IS HOT FORMING PERFORMED AT THIS SITE?

G YES
G NO

IS COLD FORMING PERFORMED AT THIS SITE?

G YES
G NO

IF "NO" IS INDICATED FOR BOTH QUESTIONS, SKIP TO SECTION 2B.

IF COLD FORMING IS PERFORMED BUT HOT FORMING IS NOT PERFORMED AT THIS SITE, SKIP QUESTIONS 2A-4 AND 2A-5. IF HOT FORMING IS PERFORMED BUT COLD FORMING IS NOT, SKIP QUESTION 2A-6.

THROUGHOUT THIS SECTION, YOU WILL BE REQUIRED TO PROVIDE INFORMATION FOR **ALL** OPERABLE UNITS AND WATER SYSTEMS RELATED TO HOT FORMING AND/OR COLD FORMING WHICH WERE ON SITE DURING 1997, INCLUDING UNITS AND WATER SYSTEMS WHICH MAY HAVE BEEN IDLE FOR AN EXTENDED PERIOD OF TIME DUE TO CIRCUMSTANCES SUCH AS MARKET CONDITIONS, MAJOR REBUILDS, OR LABOR DISPUTES. IF AN OPERABLE UNIT OR WATER SYSTEM WAS NOT IN OPERATION DURING 1997, SUBSTITUTE THE MOST RECENT CALENDAR YEAR WHEN SUCH CIRCUMSTANCES DID NOT EXIST. NOTE THE YEAR OF OPERATION AND THE CIRCUMSTANCES IN THE COMMENTS AT THE END OF THIS SECTION, AND PROVIDE DATA FROM THAT CALENDAR YEAR.

HOW MANY **OPERABLE HOT FORMING PROCESSES** WERE ON SITE DURING **1997**? _____

HOW MANY **OPERABLE COLD FORMING PROCESSES** WERE ON SITE DURING **1997**? _____

COMPLETE A COPY OF SECTION 2A FOR **EACH** OPERABLE HOT AND/OR COLD FORMING PROCESS. IF YOUR SITE EMPLOYS MULTIPLE OPERABLE UNITS FOR ELECTRIC-RESISTANCE-WELDED (ERW) PIPE/TUBE OPERATIONS, PIPE/TUBE DRAWING OPERATIONS, OR WIRE DRAWING OPERATIONS, A COPY OF SECTION 2A MAY BE COMPLETED FOR EACH GROUP OF OPERATIONS OF **THESE TYPES**. FOR EXAMPLE, TWO ERW MILLS AND FOUR SEPARATE PIPE/TUBE DRAWING OPERATIONS REQUIRE COMPLETION OF ONLY TWO COPIES OF SECTION 2A (ONE FOR THE ERW MILLS AND ONE FOR THE PIPE/TUBE DRAWING OPERATIONS). BE SURE TO PROVIDE THE NUMBER OF OPERABLE UNITS ASSOCIATED WITH A FORMING OPERATION IN QUESTION 2A-3.B. NUMBER EACH COPY OF SECTION 2A IN THE SPACE PROVIDED AT THE TOP OF EACH PAGE.

G CBI **2A-1.** Provide the designation by which your site refers to this forming process (e.g., No. 1 tandem mill, Nos. 1, 2, and 3 drawing benches). _____

_____

G CBI **2A-2.** What was the first year of operation for this forming process? _____

G CBI **2A-3.**a. Is **hot forming** or **cold forming** performed at this process?

- **G** Hot forming (SKIP to Question 2A-3.c)
- **G** Cold forming (continue)

G CBI b. Indicate the type of **cold forming** performed and the number of operable units associated with this forming process. Check (✓) only **ONE** and SKIP to Question 2A-6.

- **G** Drawing - pipe and tube; number of operable units: _____
- **G** Drawing - wire; number of operable units: _____
- **G** Drawing - other than pipe and tube or wire; number of operable units: _____
- **G** Extrusion
- **G** Forging
- **G** Electric-resistance-welding (pipe and tube); number of operable units: _____
- **G** Rolling
- **G** Other *(specify)*: _____

G CBI c. Indicate the type of **hot forming** performed at this process. Check (✓) only **ONE** then continue.

- **G** Drawing
- **G** Extrusion
- **G** Forging
- **G** Pipe and tube - butt-welded
- **G** Pipe and tube - seamless (extrusion)
- **G** Pipe and tube - seamless (piercing)
- **G** Rolling
- **G** Other *(specify)*: _____

G CBI **2A-4.**a. Is scarfing performed in conjunction with this **hot forming** process?

- **G** Yes (continue)
- **G** No (SKIP to Question 2A-5)

G CBI b. Indicate the type of scarfing emissions controls. Check (✓) **ALL** that apply.

- **G** Wet
- **G** Dry
- **G** None

G CBI **2A-5.**a. Provide the number of operable mill stands or process stations employed by this **hot forming** process or mill during **1997**. Be sure to include all mill stands or process stations from the entrance of hot steel to the exit of semi-finished or finished product.

_____

G CBI b. Indicate the type(s) of process station(s) or mill stand(s) employed at this **hot forming** process or mill. Check (✓) **ALL** that apply.

G Butt-weld	**G** Forging	**G** Scarfer
G Coiler	**G** Inside diameter purge	**G** Seamless tube
G Deoxidizing station	**G** Intermediate (rolling)	**G** Steckle
G Drawing	**G** Piercing	**G** Stretch reducing
G Elongator	**G** Rolling	**G** Other *(specify)*: _____
G Extrusion	**G** Roughing (rolling)	**G** Other *(specify)*: _____
G Finishing (rolling)	**G** Scale breaking	**G** Other *(specify)*: _____

G CBI c. Is direct contact water* applied at this **hot forming** process or mill?

G Yes (continue)
G No (SKIP to Question 2A-5.e.)

G CBI d. Is the direct contact water* recirculated or applied once-through?

G Recirculated
G Once-through

G CBI e. Are forming/rolling solutions* applied at this **hot forming** process or mill?

G Yes (continue)
G No (SKIP to Question 2A-5.g.)

G CBI f. Are the forming/rolling solutions* recirculated or applied once-through?

G Recirculated
G Once-through

G CBI g. Are wet emission controls employed for this **hot forming** process or mill?

G Yes
G No

G CBI h. Is flume flushing used for scale removal at this **hot forming** process or mill?

G Yes
G No

G CBI i. Is the wastewater from this **hot forming** process or mill discharged to one or more scale pit(s)?

G Yes
G No

SKIP to Question 2A-7

*Forming/rolling solutions have chemicals added to aid in the forming/rolling process. Direct contact water does not.

G CBI **2A-6.**a. Provide the number of operable mill stands or process stations employed by this **cold forming** process or mill during 1997. Be sure to include all mill stands or process stations from the entrance of steel to the exit of semi-finished or finished product.

_____

G CBI b. Indicate the type(s) of process station(s) or mill stand(s) employed at this **cold forming** process or mill. Check (✓) **ALL** that apply.

- **G** Cold expanded pipe
- **G** Cold drawn pipe or tube
- **G** Cold drawn wire
- **G** Electric-resistance-weld
- **G** Sendzimir
- **G** Tandem
- **G** Temper
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____

G CBI c. Is direct contact water* applied at this **cold forming** process or mill?

- **G** Yes (continue)
- **G** No (SKIP to Question 2A-6.e.)

G CBI d. Is the direct contact water* recirculated or applied once-through?

- **G** Recirculated
- **G** Once-through

G CBI e. Are forming/rolling solutions* applied at this **cold forming** process or mill?

- **G** Yes
- **G** No (SKIP to Question 2A-7)

G CBI f. What type of forming/rolling solution(s)* are applied at this **cold forming** process or mill? Check (✓) **ALL** that apply.

- **G** Animal-fat based solution
- **G** Synthetic solution
- **G** Detergent or other solutions
- **G** Other *(specify)*: _____

G CBI g. Are the forming/rolling solutions* recirculated or applied once-through?

- **G** Recirculated
- **G** Once-through

*Forming/rolling solutions have chemicals added to aid in the forming/rolling process. Direct contact water does not.

G CBI **2A-7.**a. Indicate the product(s) formed at this forming process. Check (✓) **ALL** that apply.

- **G** Bars
- **G** Billets (rectangular)
- **G** Billets (round)
- **G** Plates
- **G** Reinforcing bar
- **G** Rods
- **G** Sheets
- **G** Small structurals (angles, channels, tees, zees)
- **G** Strips
- **G** Tubes and pipes
- **G** Tubes, seamless
- **G** Wire
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____

G CBI b. Provide the shape (e.g., square, rectangular, round) and dimensions (if round, provide the diameter for width; if pipe, provide the inside diameter and wall thickness; if tube, provide the outside diameter and wall thickness) of the formed product which had the highest production in **1997**.

Product with the highest **1997** production: _____

Shape: _____ Length: _____ Width: _____ Thickness: _____

G CBI c. Provide the shape (e.g., square, rectangular, round) and dimensions (if round, provide the diameter for width; if pipe, provide the inside diameter and wall thickness; if tube, provide the outside diameter and wall thickness) of the formed product which had the second highest production in **1997**.

Product with the second highest **1997** production: _____

Shape: _____ Length: _____ Width: _____ Thickness: _____

G CBI **2A-8.** Indicate what types of steel were formed at this forming process in **1997**. Check (✓) **ALL** that apply. The percentages should add to 100 percent.

- **G** Carbon _____ %
- **G** Alloy _____ %
- **G** Stainless _____ %
- **G** Other metal products *(specify)*: _____ _____ %

Total: 100 %

G CBI **2A-9.** Provide annual production data for this forming process for each of the five calendar years 1993 through 1997.

Year	Steel Formed (tons/year)
1993	
1994	
1995	
1996	
1997	

STOP

HOW MANY **SEPARATE OPERABLE DIRECT CONTACT WATER SYSTEMS OR ROLLING SOLUTION SYSTEMS** WERE ON SITE AT THIS FORMING PROCESS IN **1997**? _____

COMPLETE A COPY OF QUESTION 2A-10 FOR **EACH** OPERABLE DIRECT CONTACT WATER SYSTEM OR **EACH** OPERABLE ROLLING SOLUTION SYSTEM. NUMBER EACH COPY OF QUESTION 2A-10 IN THE SPACE PROVIDED IN THE UPPER RIGHT CORNER. NOTE: QUESTION 2A-10 IS TWO PAGES LONG.

IF YOUR SITE DOES NOT HAVE ANY DIRECT CONTACT WATER SYSTEMS OR ROLLING SOLUTION SYSTEMS ASSOCIATED WITH THIS FORMING PROCESS, **CHECK THE BOX TO THE RIGHT AND SKIP TO QUESTION 2A-11.** G

G CBI **2A-10.**a. Indicate the function(s) of this direct contact water or rolling solution system. Check (✓) **ALL** that apply.

- G High pressure descaling spray
- G Roll and/or roll table spray cooling
- G Die spray cooling
- G Scarfer emissions control
- G Hot shear spray cooling
- G Flume flushing
- G Low pressure/laminar flow cooling
- G Product cooling including runout tables
- G Other *(specify)*: _____

G CBI b. Is the water or solution recirculated or applied once-through?

- G Recirculated (continue)
- G Once-through (SKIP to Question 2A-10.h.)

G CBI c. Is any treatment and/or conditioning (e.g., chemical additions) performed in the recirculating loop?

- G Yes (continue)
- G No (SKIP to Question 2A-10.g.)

G CBI d. Does the treatment in the recirculating loop also treat wastewater from other processes?

- G No - Dedicated treatment
- G Yes - Treatment shared with other processes

Specify the processes: _____

G CBI e. Check (✓) **ALL** treatment units and/or treatment processes which are included in the recirculating loop.

- G Clarifiers
- G Cooling towers
- G Earthen Lagoons
  - G Lined *(specify liner type)*:
    - G Clay
    - G Synthetic
    - G Other *(specify)*: _____
  - G Unlined
- G Oil skimmers
- G Scale pits
- G Sludge dewatering units (e.g., vacuum filter, pressure filtration, etc.)
- G Water filters (e.g., sand, multimedia, etc.)
- G Water softeners
- G Other *(specify)*: _____
- G None

G CBI f. Indicate chemical additions to the water recirculation system. Check (✓) **ALL** that apply.

- G Acid
- G Caustic (sodium hydroxide)
- G Corrosion inhibitor
- G Emulsified rolling oils
- G Lime
- G Polymer
- G Scale inhibitor
- G Surfactant
- G Other *(specify)*: _____
- G Other *(specify)*: _____
- G Other *(specify)*: _____
- G None

COMPLETE A COPY OF QUESTION 2A-10 FOR EACH OPERABLE DIRECT CONTACT WATER OR ROLLING SOLUTION SYSTEM.

G CBI **2A-10.**g. **(cont.)** Provide the average recirculation rate of water or solution through the system and period of operation.

_____ gpm _____ hours per day _____ days per year

G CBI h. Provide the average rate at which new water is added to the system and period of water addition (for once-through systems, provide the influent flow rate; for recirculating systems, provide the makeup flow rate).

_____ gallons per day _____ days per year

G CBI i. Indicate **ALL** sources for water addition.

- **G** Plant service water (city, well, or surface water which has not been used elsewhere on site)
- **G** Noncontact cooling water
- **G** Treated process wastewater *(specify manufacturing process(es))*: _____
- **G** Untreated process wastewater *(specify manufacturing process(es))*: _____
- **G** Treated storm water
- **G** Untreated storm water
- **G** Other *(specify)*: _____

G CBI j. Provide the average discharge rate from the system and period of discharge (for recirculating systems, provide the blowdown rate).

_____ gpm _____ hours per day _____ days per year

OR: _____ gallons per day _____ days per year

G CBI k. Indicate the destination of wastewater discharge or blowdown. Check (✓) **ALL** that apply.

- **G** Discharge to treatment *(specify treatment system)*: _____
- **G** Discharge without treatment by pipeline, sewer, or other conveyance to surface water
- **G** Discharge without treatment by pipeline, sewer, or other conveyance to POTW/PrOTW
- **G** Zero discharge or alternative disposal methods:
  - **G** Deep-well injection
  - **G** Evaporation *(specify method)*: _____
  - **G** Percolation pond
  - **G** Spray irrigation
  - **G** Contract hauled
    (specify disposal rate, including transportation): $ _____ per gallon
    (specify destination/disposal method): _____
  - **G** Incineration
  - **G** Other *(specify)*: _____

HOW MANY **OPERABLE WET AIR POLLUTION CONTROL (WAPC) SYSTEMS** WERE ON SITE AT THIS FORMING PROCESS DURING **1997**? A WAPC SYSTEM MAY INCLUDE MULTIPLE DEVICES SERVING THE SAME PROCESSING UNIT.

_____

COMPLETE A COPY OF QUESTION 2A-11 FOR **EACH** OPERABLE WAPC SYSTEM. NUMBER EACH COPY OF QUESTION 2A-11 IN THE SPACE PROVIDED IN THE UPPER RIGHT CORNER. NOTE: QUESTION 2A-11 IS THREE PAGES LONG.

IF YOUR SITE DOES NOT HAVE WET AIR POLLUTION CONTROL ASSOCIATED WITH THIS FORMING PROCESS, **CHECK THE BOX TO THE RIGHT AND SKIP TO QUESTION 2A-12.** **G**

G CBI **2A-11.**a. Provide the designation(s) of all operations associated with this WAPC system. If information for this WAPC system is already provided elsewhere in this survey, answer Question 2A-11.a., check the box to the right, and SKIP to Question 2A-12. **G**

_____

G CBI b. This WAPC system controls emissions from which of the following processes? Check (✓) **ALL** that apply.

- **G** Raw material handling, preparation, and storage
- **G** Process station or mill stand emission
- **G** Reheat furnace
- **G** Building evacuation
- **G** Other *(specify)*: _____

G CBI c. Indicate the devices in this WAPC system. Check (✓) **ALL** that apply.

- **G** Venturi scrubber
- **G** Spray chamber
- **G** Evaporator chamber
- **G** Separator
- **G** Demister
- **G** Packed tower
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____

G CBI d. Is the water recirculated or applied once-through?

- **G** Recirculated (continue)
- **G** Once-through (SKIP to Question 2A-11.j.)

G CBI e. Is any treatment and/or conditioning (e.g., chemical additions) performed in the recirculating loop?

- **G** Yes (continue)
- **G** No (SKIP to Question 2A-11.i.)

G CBI f. Does the treatment in the recirculating loop also treat wastewater from other processes?

- **G** No - Dedicated treatment
- **G** Yes - Treatment shared with other processes

Specify the processes: _____

COMPLETE A COPY OF QUESTION 2A-11 FOR EACH OPERABLE WAPC SYSTEM.

G CBI **2A-11.**g. **(cont.)** Check (✓) **ALL** treatment units and/or treatment processes which are included in the recirculating loop.

- **G** Clarifiers
- **G** Cooling towers
- **G** Earthen Lagoons
  - **G** Lined *(specify liner type)*:
    - **G** Clay
    - **G** Synthetic
    - **G** Other *(specify)*: _____
  - **G** Unlined
- **G** Oil skimmers
- **G** Scale pits
- **G** Sludge dewatering units (e.g., vacuum filter, pressure filtration, etc.)
- **G** Water filters (e.g., sand, multimedia, etc.)
- **G** Water softeners
- **G** Other *(specify)*: _____
- **G** None

G CBI h. Indicate chemical additions to the water recirculation system. Check (✓) **ALL** that apply.

- **G** Acid
- **G** Caustic (sodium hydroxide)
- **G** Corrosion inhibitor
- **G** Lime
- **G** Polymer
- **G** Scale inhibitor
- **G** Surfactant
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** None

G CBI i. Provide the average recirculation rate of water through the WAPC system and period of operation.

_____ gpm _____ hours per day _____ days per year

G CBI j. Provide the average rate at which new water is added to the system (for once-through systems, provide the influent flow rate; for recirculating systems, provide the makeup flow rate).

_____ gallons per day _____ days per year

G CBI k. Indicate **ALL** sources for water addition.

- **G** Plant service water (city, well, or surface water which has not been used elsewhere on site)
- **G** Noncontact cooling water
- **G** Treated process wastewater *(specify manufacturing process(es))*:

  _____
- **G** Untreated process wastewater *(specify manufacturing process(es))*:

  _____
- **G** Treated storm water
- **G** Untreated storm water
- **G** Other *(specify)*: _____

G CBI l. Provide the average discharge rate from the system and period of discharge (for recirculating systems, provide the blowdown rate).

_____ gpm _____ hours per day _____ days per year

OR: _____ gallons per day _____ days per year

COMPLETE A COPY OF QUESTION 2A-11 FOR EACH OPERABLE WAPC SYSTEM.

G CBI **2A-11.**m. **(cont.)** Indicate the destination of wastewater discharge or blowdown. Check (✓) **ALL** that apply.

- **G** Discharge to treatment *(specify treatment system)*: _____
- **G** Discharge without treatment by pipeline, sewer, or other conveyance to surface water
- **G** Discharge without treatment by pipeline, sewer, or other conveyance to POTW/PrOTW
- **G** Zero discharge or alternative disposal methods:
  - **G** Deep-well injection
  - **G** Evaporation *(specify method)*: _____
  - **G** Percolation pond
  - **G** Spray irrigation
  - **G** Contract hauled
    (specify disposal rate, including transportation): $ _____ per gallon
    (specify destination/disposal method): _____
  - **G** Incineration
  - **G** Other *(specify)*: _____

EXCLUDING DIRECT CONTACT WATER OR ROLLING SOLUTION SYSTEMS, WAPC SYSTEMS, AND STORM WATER, HOW MANY OTHER WASTEWATER SOURCES FROM FORMING OPERATIONS ARE PRESENT? _____

COMPLETE A COPY QUESTION 2A-12 FOR **EACH** FORMING WASTEWATER SOURCE. NUMBER EACH COPY OF QUESTION 2A-12 IN THE SPACE PROVIDED IN THE UPPER RIGHT CORNER. NOTE: QUESTION 2A-12 IS ONE PAGE LONG.

IF YOUR SITE HAS NO FORMING SOURCES WHICH CONTRIBUTE PROCESS WASTEWATER NOT ASSOCIATED WITH A DIRECT CONTACT WATER OR ROLLING SOLUTION SYSTEM, A WAPC SYSTEM, OR STORM WATER, **CHECK THE BOX TO THE RIGHT AND SKIP TO QUESTION 2A-13.** **G**

2A-12. Provide information for this forming process and related on-site wastewater generating sources.

G CBI a. Indicate the source of process wastewater **NOT** associated with a direct contact water or rolling solution system, wet air pollution control, or storm water. If there is more than one source at this site, complete a copy of this question for **EACH** forming process source.

- **G** Lubricating oil condition systems
- **G** Strip coilers
- **G** Roll shops
- **G** Basement sumps
- **G** Scarfer water
- **G** Equipment cleaning and washdown water
- **G** Other *(specify)*: _____

G CBI b. Provide the wastewater flow rate associated with the source checked above.

_____ gpm _____ hours per day _____ days per year

OR: _____ gallons per day _____ days per year

G CBI c. Indicate the destination of this wastewater stream. Check (✓) **ALL** that apply.

- **G** Discharge to treatment *(specify treatment system)*: _____
- **G** Discharge without treatment by pipeline, sewer, or other conveyance to surface water
- **G** Discharge without treatment by pipeline, sewer, or other conveyance to POTW/PrOTW
- **G** Zero discharge or alternative disposal methods:
  - **G** Deep-well injection
  - **G** Evaporation *(specify method)*: _____
  - **G** Percolation pond
  - **G** Spray irrigation
  - **G** Contract hauled
    (specify disposal rate, including transportation): $ _____ per gallon
    (specify destination/disposal method): _____
  - **G** Incineration
  - **G** Other *(specify)*: _____

G CBI **2A-13.** Are any dry air pollution control (DAPC) systems associated with this forming process?

G Yes *(specify process(es))*: _____

(specify type of DAPC system): _____

G No

G CBI **2A-14.** Attach a process flow diagram (PFD) that shows this forming process and the water use associated with this process. You are **NOT** required to create a new PFD if an existing diagram will suffice. Number the diagram in the upper right corner, and include your site ID number (as shown on the cover page of Part A). Specific instructions for including the PFD, along with example diagrams, are provided below. **Flow rates are NOT required on the diagrams.**

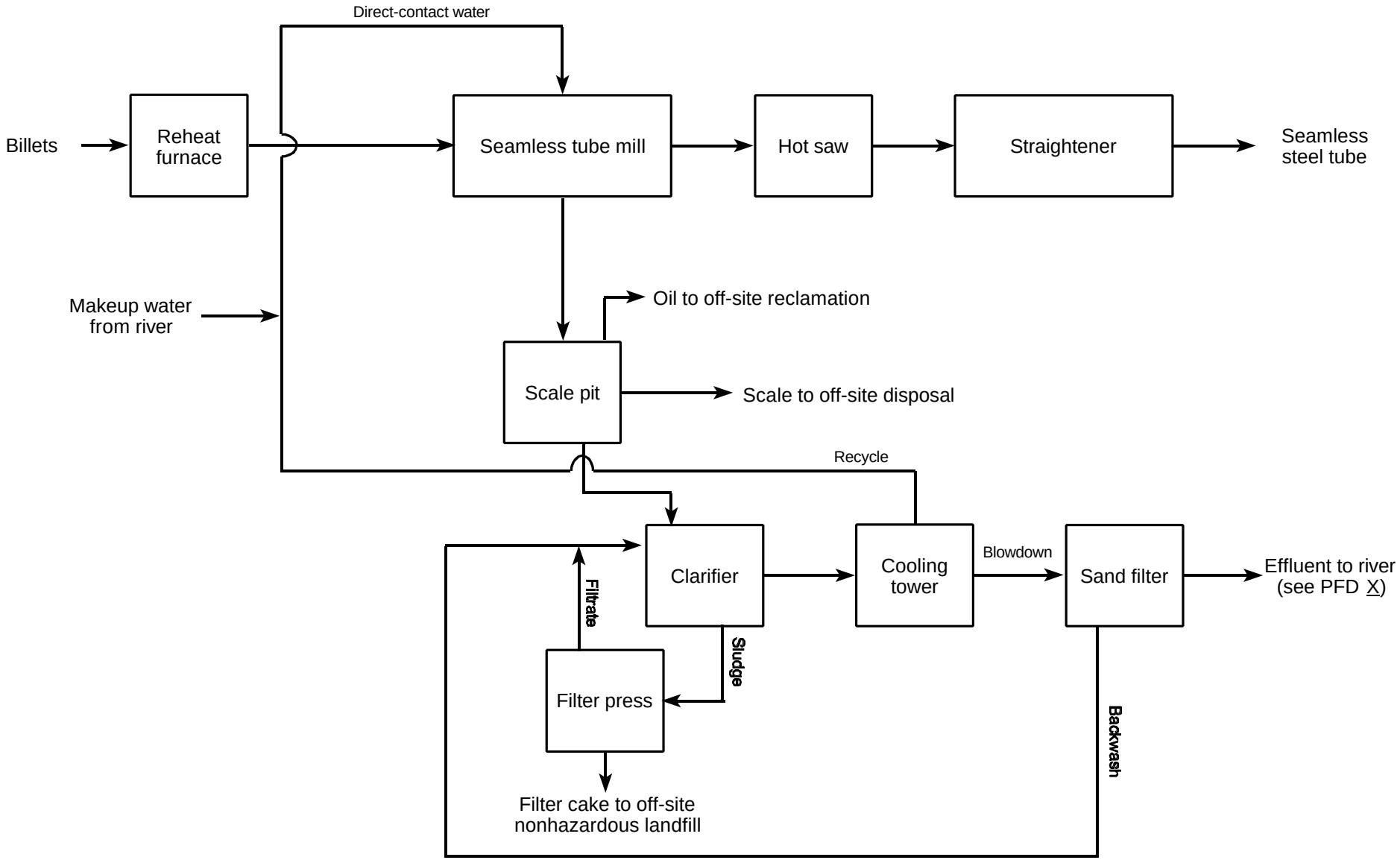
Provide the PFD number assigned to this forming process PFD. **If the process is already shown on a PFD provided elsewhere in this survey, provide the PFD number and review the following list for completeness.** If you need assistance, call the Technical Information Help Line at (800) 357-7075.

Forming PFD-_____

Process Flow Diagram Checklist

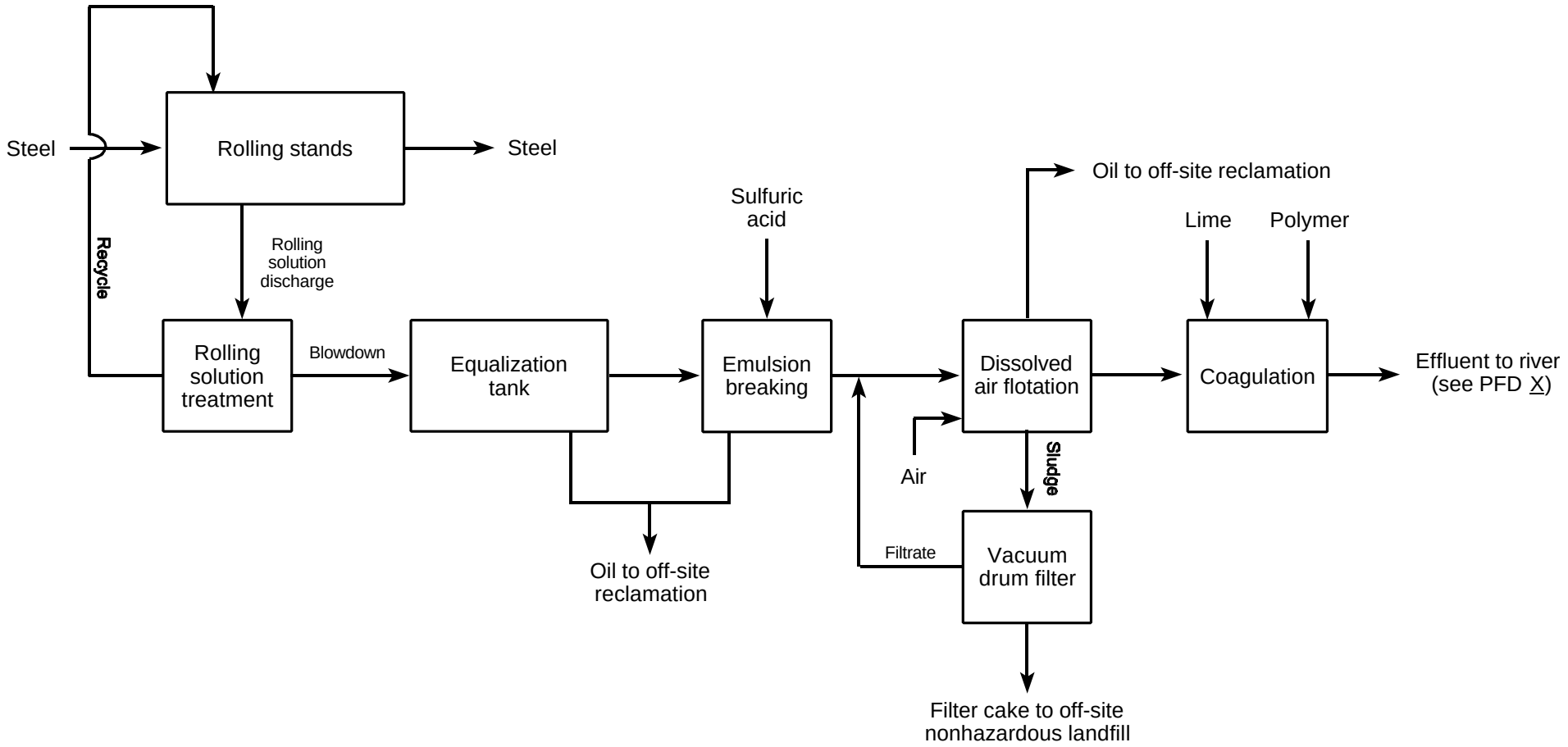
Be sure...	✓
All forming operations are included. Include those operations which do not generate process wastewater.	**G**
All air pollution control systems are included. Label each system as being either wet or dry. Water streams for all wet air pollution control systems must be shown, including all recycle streams and all treatment processes within recycle loops.	**G**
Any recycle or reuse of process wastewater or other waters is indicated clearly on the diagram.	**G**
Any in-process wastewater treatment or reuse technologies are indicated. Show and label all treatment units and all recycle loops.	**G**
Significant losses of water (e.g., evaporation) are shown.	**G**
All materials entering each operation and all products and wastes exiting each operation are identified. Wastes include wastewater, sludges, baghouse dust, and point-source air emissions. Noncontact cooling water systems which do not contain process wastewater and do not discharge to process wastewater systems do not need to be included.	**G**
All process wastewater streams are identified. When sources and destinations of process wastewater are not shown on the diagram (i.e., the stream is entering from or exiting to a location not shown on the diagram), describe the source or destination (e.g., "from river" or "to wastewater treatment") and add the PFD number, when appropriate, where the stream's previous or next location can be seen.	**G**
The PFD number and your site ID number are written on the diagram.	**G**
If you believe that the diagram should be treated as confidential, stamp it "Confidential" or write "Confidential" or "CBI" across the top. If any diagram is not marked "Confidential", it will be considered nonconfidential under 40 CFR Part 2, Subpart B.	**G**

Site ID XXXX
PFD 2



Hot Forming
Example Process Flow Diagram

Site ID XXXX
PFD 3



Cold Forming
Example Process Flow Diagram

SECTION 2B. SURFACE TREATMENT

TECHNICAL INFORMATION HELP LINE: (800) 357-7075

✓ ARE SURFACE TREATMENT OPERATIONS (SUCH AS ACID PICKLING, DESCALING, ALKALINE CLEANING, ACID CLEANING, HOT DIP COATING, OR ELECTROPLATING) PERFORMED AT THIS SITE?

G YES (CONTINUE)

G NO (SKIP TO SECTION 2C)

THROUGHOUT THIS SECTION, YOU WILL BE REQUIRED TO PROVIDE INFORMATION FOR **ALL** OPERABLE UNITS AND WATER SYSTEMS RELATED TO SURFACE TREATMENT WHICH WERE ON SITE DURING 1997, INCLUDING UNITS AND WATER SYSTEMS WHICH MAY HAVE BEEN IDLE FOR AN EXTENDED PERIOD OF TIME DUE TO CIRCUMSTANCES SUCH AS MARKET CONDITIONS, MAJOR REBUILDS, OR LABOR DISPUTES. IF AN OPERABLE UNIT OR WATER SYSTEM WAS NOT IN OPERATION DURING 1997, SUBSTITUTE THE MOST RECENT CALENDAR YEAR WHEN SUCH CIRCUMSTANCES DID NOT EXIST. NOTE THE YEAR OF OPERATION AND THE CIRCUMSTANCES IN THE COMMENTS AT THE END OF THIS SECTION, AND PROVIDE DATA FROM THAT CALENDAR YEAR.

STOP

FOR THIS SECTION, INFORMATION IS COLLECTED FOR PROCESS LINES OR AREAS. THESE LINES OR AREAS CAN BE DEFINED BY SITE PERSONNEL. IF SURFACE TREATMENT IS PERFORMED IN CONJUNCTION WITH ANNEALING IN THE SAME PROCESS LINE OR AREA, THEN INCLUDE ANNEALING IN THIS SECTION.

HOW MANY **OPERABLE SURFACE TREATMENT LINES OR AREAS** WERE ON SITE DURING **1997**? _____

COMPLETE A COPY OF QUESTION 2B-1 THROUGH 2B-8 FOR **EACH** OPERABLE SURFACE TREATMENT PROCESS LINE OR AREA. NUMBER EACH COPY OF QUESTIONS 2B-1 THROUGH 2B-8 IN THE SPACE PROVIDED IN THE UPPER RIGHT CORNER. NOTE: QUESTIONS 2B-1 THROUGH 2B-8 ARE 11 PAGES LONG.

G CBI **2B-1.** Provide the designation by which your site refers to this process line or area (e.g., No. 1 galvanizing line).

_____

G CBI **2B-2.** What was the first year of operation for this process line or area? _____

G CBI **2B-3.** Indicate what types of steel were treated at this process line or area in **1997**. Check (✓) **ALL** that apply. The percentages should add to 100 percent.

G Carbon _____ %

G Alloy _____ %

G Stainless _____ %

G Other metal products *(specify)*: _____ _____ %

Total: 100 %

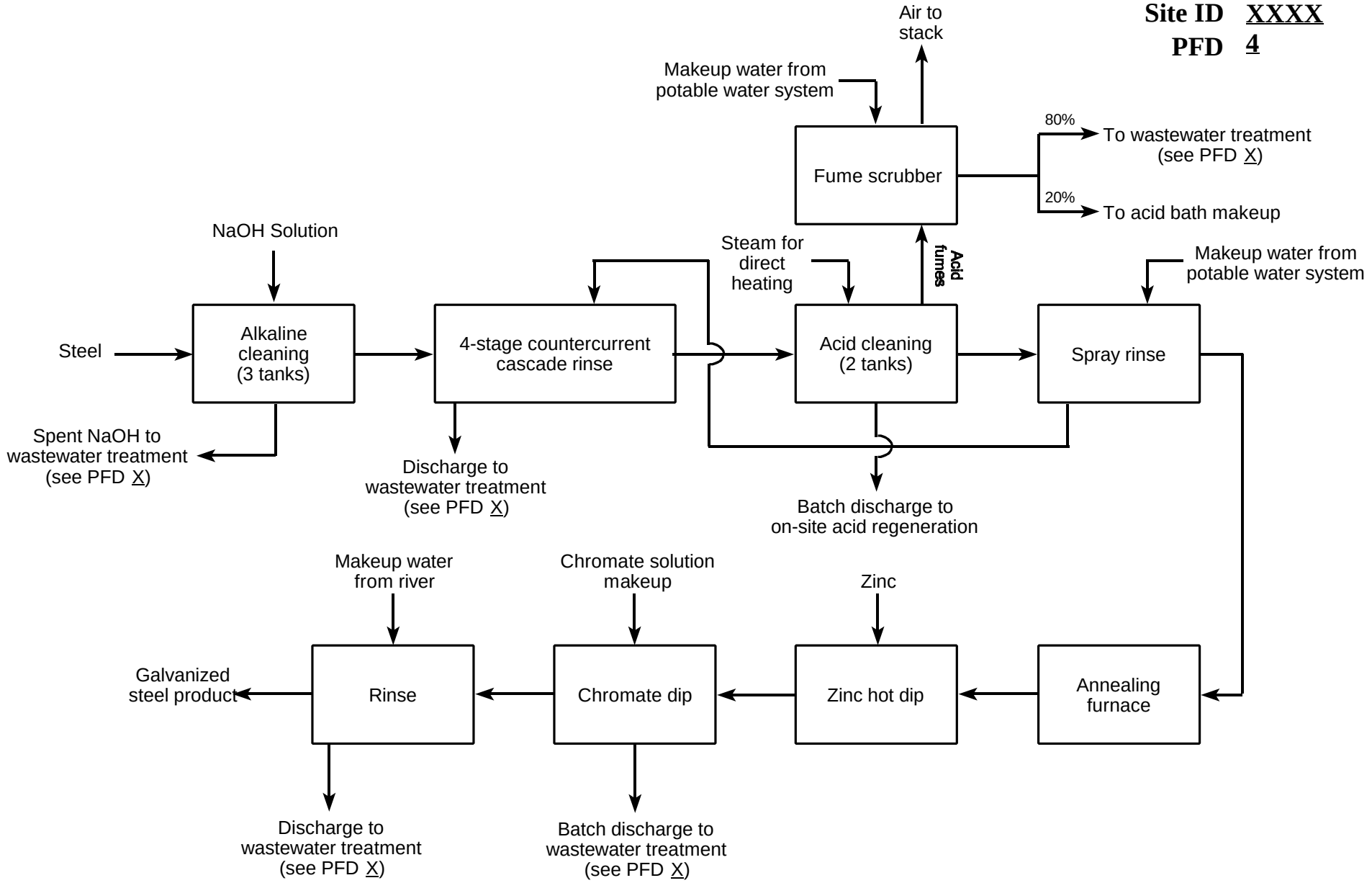
G CBI **2B-4.** Attach a process flow diagram (PFD) that shows the operations and the water use associated with this process. You are **NOT** required to create a new PFD if an existing diagram will suffice. Number the diagram in the upper right corner, and include your site ID number (as shown on the cover page of Part A). Specific instructions for including the PFD, along with an example diagram, are provided below. **Flow rates are NOT required on the diagrams.**

Provide the PFD number assigned to the PFD. **If the process is already shown on a PFD provided elsewhere in this survey, provide the PFD number and review the following list for completeness.** If you need assistance, call the Technical Information Help Line at (800) 357-7075.

Surface treatment PFD-_____

Process Flow Diagram Checklist

Be sure...	✓
All surface treatment operations (including acid regeneration) on the line or in the area are included. Include those operations which do not generate process wastewater.	**G**
All air pollution control systems are included. Label each system as being either wet or dry. Water streams for all wet air pollution control systems must be shown, including all recycle streams and all treatment processes within recycle loops.	**G**
Any recycle or reuse of process wastewater or other waters is indicated clearly on the diagram.	**G**
Any in-process wastewater treatment or reuse technologies are indicated. Show and label all treatment units and all recycle loops.	**G**
Significant losses of water (e.g., evaporation) are shown.	**G**
All materials entering each operation and all products and wastes exiting each operation are identified. Wastes include wastewater, sludges, baghouse dust, and point-source air emissions. Noncontact cooling water systems which do not contain process wastewater and do not discharge to process wastewater systems do not need to be included.	**G**
All process wastewater streams are identified. When sources and destinations of process wastewater are not shown on the diagram (i.e., the stream is entering from or exiting to a location not shown on the diagram), describe the source or destination (e.g., "from river" or "to wastewater treatment") and add the PFD number, when appropriate, where the stream's previous or next location can be seen.	**G**
The PFD number and your site ID number are written on the diagram.	**G**
If you believe that the diagram should be treated as confidential, stamp it "Confidential" or write "Confidential" or "CBI" across the top. If any diagram is not marked "Confidential", it will be considered nonconfidential under 40 CFR Part 2, Subpart B.	**G**



Zinc Hot Dip Coating Line
Example Process Flow Diagram

G CBI **2B-5.** Indicate the operations performed at this process line or area. Check (✓) **ALL** that apply. Indicate the number of operable units for each type of process.

Type of Process	Number of Operable Units (e.g., tanks or furnaces) in This Process Line or Area
G Acid pickling	
G Acid pickling rinse	
G Acid cleaning	
G Acid cleaning rinse	
G Alkaline cleaning	
G Alkaline cleaning rinse	
G Descaling - Kolene® bath	
G Descaling - Hydride® bath	
G Descaling - electrolytic sodium sulfate	
G Descaling rinse	
G Annealing	
G Annealing quench or rinse	
G Surface activation (fluxing)	
G Surface activation rinse	
G Electroplating	
G Electroplating rinse	
G Hot dip coating	
G Coating sealant	
G Coating sealant rinse	
G Other *(specify)*:	
G Other *(specify)*:	
G Other *(specify)*:	
G Other *(specify)*:	
G Other *(specify)*:	
G Other *(specify)*:	
G Other *(specify)*:	
G Other *(specify)*:	

G CBI **2B-6.** Provide annual production data for this process line or area for each of the five calendar years 1993 through 1997.

Year	Steel Pickled, Descaled, Cleaned, or Coated (tons/year)
1993	
1994	
1995	
1996	
1997	

G CBI **2B-7.**a. Indicate the product(s) processed at this line or area. Check (✓) **ALL** that apply.

- **G** Bars
- **G** Billets (rectangular)
- **G** Billets (round)
- **G** Plates
- **G** Reinforcing bar
- **G** Rods
- **G** Sheets
- **G** Small structurals (angles, channels, tees, zees)
- **G** Strips
- **G** Tubes and pipes
- **G** Tubes, seamless
- **G** Wire
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____

G CBI b. Provide the shape (e.g., square, rectangular, round) and dimensions (if round, provide the diameter for width; if pipe, provide the inside diameter and wall thickness; if tube, provide the outside diameter and wall thickness) of the product processed at this line or area which had the highest production in **1997**.

Product with the highest **1997** production: _____

Shape: _____ Length: _____ Width: _____ Thickness: _____

G CBI c. Provide the shape (e.g., square, rectangular, round) and dimensions (if round, provide the diameter for width; if pipe, provide the inside diameter and wall thickness; if tube, provide the outside diameter and wall thickness) of the product processed at this line or area which had the second highest production in **1997**.

Product with the second highest **1997** production: _____

Shape: _____ Length: _____ Width: _____ Thickness: _____

HOW MANY **OPERATIONS, INCLUDING ASSOCIATED RINSES**, ARE IN THIS PROCESS LINE OR AREA?

_____

COMPLETE A COPY OF QUESTION 2B-8 FOR **EACH** OPERATION **AND** ITS ASSOCIATED RINSE, IF APPLICABLE. FOR EXAMPLE, TWO ELECTROPLATING BATHS FOLLOWED BY TWO RINSES ONLY NEED ONE RESPONSE TO QUESTION 2B-8. DO NOT RESPOND TO THIS QUESTION FOR ANNEALING FURNACES UNLESS FOLLOWED BY A WATER QUENCH. NUMBER EACH COPY OF QUESTION 2B-8 IN THE SPACE PROVIDED IN THE UPPER RIGHT CORNER. NOTE: QUESTION 2B-8 IS SIX PAGES LONG.

G CBI **2B-8.**a. Provide the designation by which your site refers to this operation (and its associated rinse, if applicable).

_____

G CBI b. Indicate the type of operation (and its associated rinse, if applicable) performed. Check (✓) **ALL** that apply.

- **G** Acid pickling
- **G** Acid pickling rinse
- **G** Acid cleaning
- **G** Acid cleaning rinse
- **G** Alkaline cleaning
- **G** Alkaline cleaning rinse
- **G** Batch annealing
- **G** Continuous annealing
- **G** Annealing rinse or quench
- **G** Descaling
  - **G** Kolene® bath
  - **G** Hydride® bath
  - **G** Electrolytic sodium sulfate
  - **G** Other *(specify)*: _____
- **G** Descaling rinse
- **G** Surface activation (fluxing)
- **G** Surface activation rinse
- **G** Electroplating
- **G** Electroplating rinse
- **G** Hot dip coating
- **G** Coating sealant
- **G** Coating sealant rinse
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____

G CBI c. Indicate the previous operation or rinse that the steel entering this operation had left. Check (✓) **ALL** that apply.

- **G** Acid pickling
- **G** Acid pickling rinse
- **G** Acid cleaning
- **G** Acid cleaning rinse
- **G** Alkaline cleaning
- **G** Alkaline cleaning rinse
- **G** Batch annealing
- **G** Continuous annealing
- **G** Annealing rinse or quench
- **G** Descaling
  - **G** Kolene® bath
  - **G** Hydride® bath
  - **G** Electrolytic sodium sulfate
  - **G** Other *(specify)*: _____
- **G** Descaling rinse
- **G** Cold forming
- **G** Hot forming
- **G** Surface activation (fluxing)
- **G** Surface activation rinse
- **G** Electroplating
- **G** Electroplating rinse
- **G** Hot dip coating
- **G** Coating sealant
- **G** Coating sealant rinse
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____

G NA - Beginning of process line

COMPLETE A COPY OF QUESTION 2B-8 FOR EACH OPERATION AND ITS ASSOCIATED RINSE AT THIS PROCESS LINE OR AREA.

G CBI **2B-8.**d. **(cont.)** Indicate the next operation that the steel leaving this operation or rinse would enter. Check (✓) **ALL** that apply.

- **G** Acid pickling
- **G** Acid cleaning
- **G** Alkaline cleaning
- **G** Batch annealing
- **G** Continuous annealing
- **G** Cold forming
- **G** Descaling
  - **G** Kolene® bath
  - **G** Hydride® bath
  - **G** Electrolytic sodium sulfate
  - **G** Other *(specify)*: _____
- **G** Surface activation (fluxing)
- **G** Electroplating
- **G** Hot dip coating
- **G** Coating sealant
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____

G NA - End of process line

G CBI e. If this operation is hot dip coating, indicate the metal type(s) applied. If this operation is **NOT** a hot dip coating operation, check (✓) the box to the right and SKIP to Question 2B-8.f. **G**

- **G** Zinc
- **G** Aluminum
- **G** Terne (tin/lead)
- **G** Zinc/aluminum alloy
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____

G CBI f. If this operation is electroplating, indicate the metal type(s) applied. If this operation is **NOT** an electroplating operation, check (✓) the box to the right and SKIP to Question 2B-8.g. **G**

- **G** Tin
- **G** Zinc
- **G** Zinc/nickel alloy
- **G** Chromium
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____

COMPLETE A COPY OF QUESTION 2B-8 FOR EACH OPERATION AND ITS ASSOCIATED RINSE AT THIS PROCESS LINE OR AREA.

G CBI **2B-8.**g. **(cont.)** Indicate chemicals added to the solution of this operation. Check (✓) **ALL** that apply.

- **G** Hydrochloric acid
- **G** Sulfuric acid
- **G** Nitric acid
- **G** Hydrofluoric acid
- **G** Sodium hydroxide
- **G** Potassium hydroxide
- **G** Zinc phosphate
- **G** Sodium stearate
- **G** Kolene®
- **G** Hydride®
- **G** Chromic acid
- **G** Sodium dichromate
- **G** Urea
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** None added

G CBI h. Indicate the method for heating the solution from this operation (and its associated rinse, if applicable).

Heating Method	Solution	Rinse
Direct steam injection	**G**	**G**
Indirect heating with heat exchanger (noncontact)	**G**	**G**
Other *(specify)*:	**G**	**G**
Other *(specify)*:	**G**	**G**
Not heated (if both are checked, SKIP to Question 2B-8.j)	**G**	**G**

G CBI i. Indicate the method for agitating or stirring the solution from this operation (and its associated rinse, if applicable).

Agitating or Stirring Method	Solution	Rinse
Air sparging	**G**	**G**
Mechanical agitation	**G**	**G**
Other *(specify)*:	**G**	**G**
Other *(specify)*:	**G**	**G**
Not agitated or stirred	**G**	**G**

G CBI j. Is a fume scrubber or wet air pollution control system associated with the solution from this operation (and its associated rinse, if applicable).

Associated Fume Scrubber or Wet Air Pollution Control	Solution	Rinse
Yes	**G**	**G**
No	**G**	**G**

COMPLETE A COPY OF QUESTION 2B-8 FOR EACH OPERATION AND ITS ASSOCIATED RINSE AT THIS PROCESS LINE OR AREA.

G CBI **2B-8.**k. **(cont.)** Indicate **ALL** sources of water addition for the solution from this operation (and its associated rinse, if applicable).

Sources of Water Addition	Operation, Associated Rinse, or Both?
G Plant service water (city, well, or surface water which has not been used elsewhere on site)	**G** Operation **G** Associated Rinse
G Noncontact cooling water	**G** Operation **G** Associated Rinse
G Treated process wastewater *(specify manufacturing process(es))*: Operation(s): Associated Rinse:	**G** Operation **G** Associated Rinse
G Untreated process wastewater *(specify manufacturing process(es))*: Operation(s): Associated Rinse:	**G** Operation **G** Associated Rinse
G Treated storm water	**G** Operation **G** Associated Rinse
G Untreated storm water	**G** Operation **G** Associated Rinse
G Other *(specify)*:	**G** Operation **G** Associated Rinse

G CBI l. Provide the blowdown or discharge rate of the solution along with the period of discharge from this operation (and its associated rinse, if applicable).

Blowdown/Discharge Rate and Period of Discharge	Operation	Associated Rinse
gallons per minute		
hours per day		
days per year		
OR:		
gallons per day		
days per year		

COMPLETE A COPY OF QUESTION 2B-8 FOR EACH OPERATION AND ITS ASSOCIATED RINSE AT THIS PROCESS LINE OR AREA.

G CBI **2B-8.**m. **(cont.)** Indicate the method(s) by which your site disposes of the **SOLUTION** from this operation. Check (✓) **ALL** that apply.

- **G** On-site regeneration and reuse
- **G** Discharge to treatment *(specify treatment system)*: _____
- **G** Discharge without treatment by pipeline, sewer, or other conveyance to surface water
- **G** Discharge without treatment by pipeline, sewer, or other conveyance to POTW/PrOTW
- **G** Zero discharge or alternative disposal methods:
  - **G** Deep-well injection
  - **G** Evaporation *(specify method)*: _____
  - **G** Percolation pond
  - **G** Spray irrigation
  - **G** Contract hauled
    (specify disposal rate, including transportation): $ _____ per gallon
    (specify destination/disposal method): _____
  - **G** Incineration
  - **G** Other *(specify)*: _____

G CBI n. Indicate the method(s) by which your site disposes of the **ASSOCIATED RINSE**. Check (✓) **ALL** that apply. If there is **NOT** an associated rinse, check the box to the right and SKIP to Question 2B-9. **G**

- **G** On-site regeneration and reuse
- **G** Discharge to another process or rinse *(specify process or rinse designation)*:
  _____
- **G** Discharge to treatment *(specify treatment system)*: _____
- **G** Discharge without treatment by pipeline, sewer, or other conveyance to surface water
- **G** Discharge without treatment by pipeline, sewer, or other conveyance to POTW/PrOTW
- **G** Zero discharge or alternative disposal methods:
  - **G** Deep-well injection
  - **G** Evaporation *(specify method)*: _____
  - **G** Percolation pond
  - **G** Spray irrigation
  - **G** Contract hauled
    (specify disposal rate, including transportation): $ _____ per gallon
    (specify destination/disposal method): _____
  - **G** Incineration
  - **G** Other *(specify)*: _____

COMPLETE A COPY OF QUESTION 2B-8 FOR EACH OPERATION AND ITS ASSOCIATED RINSE AT THIS PROCESS LINE OR AREA.

G CBI **2B-8.**o. **(cont.)** Indicate whether the **ASSOCIATED RINSE** is operated as a spray or immersion.

- **G** Spray
- **G** Immersion
- **G** Both

G CBI p. Indicate the flow pattern of the **ASSOCIATED RINSE**.

- **G** Recirculation with blowdown
- **G** Multiple-stage countercurrent cascade
  Indicate number of stages: _____
- **G** Stagnant with batch discharge
- **G** Once-through with continuous flow
- **G** Once-through with intermittent flow
- **G** Other *(specify)*: _____

HOW MANY **OPERABLE ACID REGENERATION PLANTS** WERE ON SITE DURING **1997**? _____

COMPLETE A COPY OF QUESTION 2B-9 FOR **EACH** OPERABLE ACID REGENERATION PLANT. NUMBER EACH COPY OF QUESTION 2B-9 IN THE SPACE PROVIDED IN THE UPPER RIGHT CORNER. NOTE: QUESTION 2B-9 IS ONE PAGE LONG.

IF YOUR SITE DOES NOT HAVE ANY ACID REGENERATION PLANTS, **CHECK THE BOX TO THE RIGHT AND SKIP TO QUESTION 2B-10.** **G**

G CBI **2B-9.**a. Provide the designation by which your site refers to this acid regeneration plant.

_____

G CBI b. Which acids are regenerated by this plant?

G Hydrochloric acid
G Sulfuric acid
G Other *(specify)*: _____

G CBI c. How many gallons of spent acid are processed in this acid regeneration plant each day?

_____ gallons per day

G CBI d. Provide the name of the manufacturer of this acid regeneration plant.

_____

G CBI e. Provide the method of regeneration and list the products, by-products, and wastes produced by this acid regeneration plant.

_____

_____

_____

_____

G CBI f. Provide costs paid during **1997** for the disposal of by-products or wastes and the rate of disposal.

Disposal costs incurred: $ _____
Rate of disposal: $ _____ per **G** ton
G pound

G Not applicable

G CBI g. Provide the revenue received during **1997** for the sale of by-products or wastes and the rate of sale.

Revenue received: $ _____
Rate of sale: $ _____ per **G** ton
G pound

G Not applicable

HOW MANY **OPERABLE WET AIR POLLUTION CONTROL (WAPC) SYSTEMS** WERE ON SITE AT THIS SURFACE TREATMENT OPERATION DURING **1997**? A WAPC SYSTEM MAY INCLUDE MULTIPLE DEVICES SERVING THE SAME PROCESSING UNIT. _____

COMPLETE A COPY OF QUESTION 2B-10 FOR **EACH** OPERABLE WAPC SYSTEM. NUMBER EACH COPY OF QUESTION 2B-10 IN THE SPACE PROVIDED IN THE UPPER RIGHT CORNER. NOTE: QUESTION 2B-10 IS THREE PAGES LONG.

IF YOUR SITE DOES NOT HAVE WET AIR POLLUTION CONTROL ASSOCIATED WITH ANY PROCESS LINES OR AREAS, **CHECK THE BOX TO THE RIGHT AND SKIP TO QUESTION 2B-11.** **G**

G CBI **2B-10.**a. Provide the designation(s) of the operation(s), process line(s), acid regeneration plant(s), and all other operations associated with this WAPC system. Designations should correspond with response(s) to Questions 2B-1 (process line or area), 2B-8.a. (operations and associated rinses), or 2B-9.a. (acid regeneration plant). If information for this WAPC system is already provided elsewhere in this survey, answer Question 2B-10.a., check the box to the right, and SKIP to Question 2B-11. **G**

_____

G CBI b. This WAPC system controls emissions from which of the following? Check (✓) **ALL** that apply.

- **G** Process baths
- **G** Acid regeneration
- **G** Building evacuation
- **G** Other *(specify)*: _____

G CBI c. Indicate the devices in this WAPC system. Check (✓) **ALL** that apply.

- **G** Venturi scrubber
- **G** Spray chamber
- **G** Evaporation chamber
- **G** Separator
- **G** Demister
- **G** Packed tower
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____

G CBI d. Is the water recirculated or applied once-through?

- **G** Recirculated (continue)
- **G** Once-through (SKIP to Question 2B-10.j.)

G CBI e. Is any treatment and/or conditioning (e.g., chemical additions) performed in the recirculating loop?

- **G** Yes (continue)
- **G** No (SKIP to Question 2B-10.i.)

G CBI f. Does the treatment in the recirculating loop also treat wastewater from other processes?

- **G** No - Dedicated treatment
- **G** Yes - Treatment shared with other processes

Specify the processes: _____

COMPLETE A COPY OF QUESTION 2B-10 FOR EACH OPERABLE WAPC SYSTEM.

G CBI **2B-10.**g. **(cont.)** Check (✓) **ALL** treatment units and/or treatment processes which are included in the recirculating loop.

- **G** Clarifiers
- **G** Cooling towers
- **G** Earthen Lagoons
  - **G** Lined *(specify liner types)*:
    - **G** Clay
    - **G** Synthetic
    - **G** Other *(specify)*: _____
  - **G** Unlined
- **G** Oil skimmers
- **G** Scale pits
- **G** Sludge dewatering units (e.g., vacuum filter, pressure filtration, etc.)
- **G** Water filters (e.g., sand, multimedia, etc.)
- **G** Water softeners
- **G** Other *(specify)*: _____
- **G** None

G CBI h. Indicate chemical additions to the water recirculation system. Check (✓) **ALL** that apply.

- **G** Acid
- **G** Caustic (sodium hydroxide)
- **G** Corrosion inhibitor
- **G** Lime
- **G** Polymer
- **G** Scale inhibitor
- **G** Surfactant
- **G** Other *(specify)*: _____
- **G** Other *(specify)*: _____
- **G** None

G CBI i. Provide the average recirculation rate of water through the WAPC system and period of operation.

_____ gpm _____ hours per day _____ days per year

G CBI j. Provide the average rate at which new water is added to the system (for once-through systems, provide the influent flow rate; for recirculating systems, provide the makeup flow rate).

_____ gallons per day _____ days per year

G CBI k. Indicate **ALL** sources for water addition.

- **G** Plant service water (city, well, or surface water which has not been used elsewhere on site)
- **G** Noncontact cooling water
- **G** Treated process wastewater *(specify manufacturing process(es))*: _____
- **G** Untreated process wastewater *(specify manufacturing process(es))*: _____
- **G** Treated storm water
- **G** Untreated storm water
- **G** Other *(specify)*: _____

G CBI l. Provide the average discharge rate from the system and period of discharge (for recirculating systems, provide the blowdown rate).

_____ gpm _____ hours per day _____ days per year

OR: _____ gallons per day _____ days per year

COMPLETE A COPY OF QUESTION 2B-10 FOR EACH OPERABLE WAPC SYSTEM.

G CBI **2B-10.**m. **(cont.)** Indicate the destination of wastewater discharge or blowdown. Check (✓) **ALL** that apply.

- **G** Process solution makeup water *(specify process)*: _____
- **G** Discharge to treatment *(specify treatment system)*: _____
- **G** Discharge without treatment by pipeline, sewer, or other conveyance to surface water
- **G** Discharge without treatment by pipeline, sewer, or other conveyance to POTW/PrOTW
- **G** Zero discharge or alternative disposal methods:
  - **G** Deep-well injection
  - **G** Evaporation *(specify method)*: _____
  - **G** Percolation pond
  - **G** Spray irrigation
  - **G** Contract hauled
    (specify disposal rate, including transportation): $ _____ per gallon
    (specify destination/disposal method): _____
  - **G** Incineration
  - **G** Other *(specify)*: _____

STOP

EXCLUDING WAPC SYSTEMS, PROCESS DISCHARGES, ACID REGENERATION, AND STORM WATER, HOW MANY OTHER WASTEWATER SOURCES FROM SURFACE TREATMENT OPERATIONS ARE PRESENT? _____

COMPLETE A COPY OF QUESTION 2B-11 FOR **EACH** SURFACE TREATMENT WASTEWATER SOURCE. NUMBER EACH COPY OF QUESTION 2B-11 IN THE SPACE PROVIDED IN THE UPPER RIGHT CORNER. NOTE: QUESTION 2B-11 IS ONE PAGE LONG.

IF YOUR SITE HAS NO SOURCES WHICH CONTRIBUTE PROCESS WASTEWATER NOT ASSOCIATED WITH A WAPC SYSTEM, PROCESS DISCHARGES, ACID REGENERATION, OR STORM WATER, **CHECK THE BOX TO THE RIGHT AND SKIP TO QUESTION 2B-12.** **G**

2B-11. Provide information for the surface treatment or acid regeneration operations and related on-site wastewater generating sources.

G CBI a. Indicate the source of process wastewater **NOT** associated with wet air pollution control, process discharges, acid regeneration, or storm water. If there is more than one source at this site, complete a copy of this question for **EACH** surface treatment source.

- **G** Raw material handling, preparation, and storage
- **G** Tank clean outs
- **G** Equipment cleaning and washdown water
- **G** Other *(specify)*: _____

G CBI b. Provide the wastewater flow rate and period of discharge associated with the source checked above.

_____ gpm _____ hours per day _____ days per year

OR: _____ gallons per day _____ days per year

G CBI c. Indicate the destination of this wastewater stream. Check (✓) **ALL** that apply.

- **G** Discharge to treatment *(specify treatment system)*: _____
- **G** Discharge without treatment by pipeline, sewer, or other conveyance to surface water
- **G** Discharge without treatment by pipeline, sewer, or other conveyance to POTW/PrOTW
- **G** Zero discharge or alternative disposal methods:
  - **G** Deep-well injection
  - **G** Evaporation *(specify method)*: _____
  - **G** Percolation pond
  - **G** Spray irrigation
  - **G** Contract hauled
    (specify disposal rate, including transportation): $ _____ per gallon
    (specify destination/disposal method): _____
  - **G** Incineration
  - **G** Other *(specify)*: _____

G CBI **2B-12.** Are any dry air pollution control (DAPC) systems associated with the surface treatment operations?

G Yes *(specify units or lines)*: _____

(specify type of system): _____

G No

SECTION 2C. POLLUTION PREVENTION PRACTICES (INCLUDING WASTE REDUCTION AND PROCESS RECYCLING)

TECHNICAL INFORMATION HELP LINE: (800) 357-7075

In this section, describe environmental management or pollution prevention (waste reduction) practices. Examples include but are not limited to:

- Use of at-the-source purification systems to extend bath life;
- Recovery and/or reuse of surface treatment solutions other than acid regeneration;
- Reuse of wet air pollution control wastewater for chemical bath makeup;
- Cascading manufacturing process discharges;
- Countercurrent cascade rinsing;
- Reuse of rinse water for chemical bath makeup;
- Substitution of less toxic chemicals for certain plant-wide applications (e.g., road dust suppression, floor or equipment cleaning);
- Segregation of process wastes to maximize reuse;
- Collection and treatment and/or disposal of storm water;
- Collection and treatment and/or disposal of landfill leachate from any landfills;
- Collection and treatment and/or disposal of any contaminated ground waters;
- Management of spillage and losses from raw material handling operations;
- Management of runoff from raw material or product storage piles;
- Management of fugitive discharges of process wastewaters and materials;
- Surveillance and corrective action for oil discharges from large NCCW flows;
- Practices for oil selection, management, and conservation;
- Specialized employee training;
- Prompt attention to faulty equipment, leaks, and other problems;
- Preventive maintenance and equipment monitoring program to check for leaks and spills; and
- Policies and operational procedures instituted as a result of previous leaks and equipment failures resulting in a release of wastes and by-products.

For each practice, try to include the following information:

- Affected manufacturing process(es) and wastewater streams;
- Targeted pollutants;
- Cost information (e.g., cost of installation or implementation, net change in operating costs as a result of the practice); and
- Measurable results (e.g., emissions reductions).

G CBI Describe the management or pollution prevention (waste reduction) practices implemented by your site. Describe all processes where by-products and wastes are recovered for reuse or sold as a raw material feedstock. Discuss the percent recovered. **If you need additional space, photocopy this page before writing on it and number each copy in the space provided in the upper right corner.** If you have previously prepared descriptions or reports of management or pollution prevention activities, attach these to the survey, write your site ID (shown on the cover page of Part A) and "Section 2C" on the upper right corner of each attachment, and reference them here.

SECTION 3

IN-PROCESS AND END-OF-PIPE WASTEWATER TREATMENT AND OUTFALL INFORMATION

GENERAL INSTRUCTIONS

This section of the survey has been designed to collect information specific to the in-process and end-of-pipe treatment of process wastewaters at your site. You are required to complete the following subsections:

3A In-Process and End-of-Pipe Wastewater Treatment Systems
3B Permit and General Discharge Information
3C Monitoring Data

Carefully read the instructions at the beginning of each subsection. **SECTION 3A may need to be photocopied before responding if your site has multiple wastewater treatment systems. DO NOT complete a copy of Section 3A for wastewater treatment systems dedicated to sanitary wastewaters. For copied sections, number the copies using the space provided at the top of each page. Some QUESTIONS within each copied section may need to be copied before responding. For copied pages, number the copies using the space provided in the upper right corner.**

In order to understand the overall process, EPA is requiring in Question 3A-1 that you attach to the survey a wastewater treatment process flow diagram (PFD) for each wastewater treatment system used to treat process wastewater on site, including treatment within recirculation loops, treatment of blowdowns, and treatment of once-through process wastewater. Because you are asked to attach several PFDs to the survey, number each PFD in the upper right corner, starting with "PFD-1", and numbering each sequentially. If you have already started numbering PFDs, use the next number in the sequence. Make sure your site ID number (shown on the cover page of Part A) is on each diagram.

Refer to the Definitions Section for terms which are used in this survey.

If a particular part of the required information is not applicable to a specific question, indicate by "NA" rather than leaving the answer blank. Enter zero where appropriate. Do not leave an entry blank if the answer is zero.

You are required to provide best engineering estimates when data are not readily available. If you provide an estimate, note the methods that were used to make the estimates on the Comments page at the end of the survey.

If you have any comments on a question or you feel an answer needs clarification, use the Comments page located at the end of the survey. Be sure to cross-reference your comments by question number.

If you have any questions regarding the completion of this section of the survey, contact the Technical Information Help Line at (800) 357-7075 for assistance, or email your questions to steel_helpline@erg.com.

Indicate information which should be treated as confidential by checking the Confidential Business Information (CBI) box next to each question number for which responses contain CBI. Any response where "CBI" is not checked will be considered nonconfidential. Refer to the instructions given in the PROVISIONS REGARDING DATA CONFIDENTIALITY section on page ii for additional information regarding EPA's confidentiality procedures set forth in 40 CFR Part 2, Subpart B.

SECTION 3A. IN-PROCESS AND END-OF-PIPE WASTEWATER TREATMENT SYSTEMS

TECHNICAL INFORMATION HELP LINE: (800) 357-7075

✓

IS ANY WASTEWATER TREATMENT PERFORMED AT THIS SITE?

G YES (CONTINUE)

G NO (SKIP TO SECTION 3B)

THROUGHOUT THIS SECTION, YOU WILL BE REQUIRED TO PROVIDE INFORMATION FOR **ALL** OPERABLE WATER SYSTEMS RELATED TO WASTEWATER TREATMENT WHICH WERE ON SITE DURING 1997, INCLUDING WATER SYSTEMS WHICH MAY HAVE BEEN IDLE FOR AN EXTENDED PERIOD OF TIME DUE TO CIRCUMSTANCES SUCH AS MARKET CONDITIONS, MAJOR REBUILDS, OR LABOR DISPUTES. IF AN OPERABLE WATER SYSTEM WAS NOT IN OPERATION DURING 1997, SUBSTITUTE THE MOST RECENT CALENDAR YEAR WHEN SUCH CIRCUMSTANCES DID NOT EXIST. NOTE THE YEAR OF OPERATION AND THE CIRCUMSTANCES IN THE COMMENTS AT THE END OF THIS SECTION, AND PROVIDE DATA FROM THAT CALENDAR YEAR.

FOR PURPOSES OF THIS SURVEY, EPA IS REQUIRING INFORMATION ABOUT ALL WASTEWATER TREATMENT WHICH OCCURS AT YOUR SITE EXCEPT TREATMENT OF SANITARY WASTEWATERS. IN ORDER TO UNDERSTAND THE SPECIFICS OF YOUR TREATMENT SYSTEM(S), EPA IS REQUIRING THAT YOU COMPLETE A COPY OF SECTION 3A FOR **EACH** IN-PROCESS WASTEWATER TREATMENT SYSTEM, **EACH** WASTEWATER PRETREATMENT SYSTEM, AND **EACH** END-OF-PIPE (FINAL) WASTEWATER TREATMENT SYSTEM. FOR THE PURPOSE OF THIS SURVEY, EPA IS USING THE FOLLOWING DEFINITIONS FOR WASTEWATER TREATMENT:

IN-PROCESS WASTEWATER TREATMENT SYSTEM: A PROCESS WASTEWATER OR CHEMICAL SOLUTION TREATMENT SYSTEM TYPICALLY LOCATED AT OR NEAR A MANUFACTURING PROCESS FOR THE PURPOSE OF RETURNING WATER TO THE PROCESS (E.G., COLD ROLLING SOLUTION TREATMENT AND RECYCLE SYSTEM). AN IN-PROCESS WASTEWATER TREATMENT SYSTEM TYPICALLY HAS A BLOWDOWN WHICH MAY OR MAY NOT RECEIVE FURTHER TREATMENT.

WASTEWATER PRETREATMENT SYSTEM: A SYSTEM FOR SEGREGATED WASTEWATERS WITH SPECIFIC POLLUTANT CHARACTERISTICS (E.G., HEXAVALENT CHROMIUM, HIGH OIL CONTENT). A WASTEWATER PRETREATMENT SYSTEM PRETREATS SEGREGATED WASTEWATERS FOR THOSE SPECIFIC POLLUTANT CHARACTERISTICS BEFORE DISCHARGING TO ANOTHER FINAL (TYPICALLY END-OF-PIPE) WASTEWATER TREATMENT SYSTEM.

END-OF-PIPE (FINAL) WASTEWATER TREATMENT SYSTEM: A SYSTEM WHICH RECEIVES AND TREATS WASTEWATERS FROM ANY COMBINATION OF THE FOLLOWING: PROCESS DISCHARGES, IN-PROCESS WASTEWATER TREATMENT SYSTEM DISCHARGES, STORM WATERS, OR PRETREATMENT SYSTEM DISCHARGES.

HOW MANY **OPERABLE WASTEWATER TREATMENT SYSTEMS** (AS DEFINED ABOVE) WERE ON SITE DURING **1997**?

____ IN-PROCESS WASTEWATER TREATMENT SYSTEM
____ WASTEWATER PRETREATMENT SYSTEM
____ END-OF-PIPE (FINAL) WASTEWATER TREATMENT SYSTEM

COMPLETE A COPY OF SECTION 3A FOR **EACH** TREATMENT SYSTEM. WHILE IN-PROCESS TREATMENT WAS IDENTIFIED IN SECTION 2, DETAILED INFORMATION WAS NOT COLLECTED. SECTION 3A SHOULD BE COMPLETED FOR EACH OF THESE SYSTEMS. NUMBER EACH COPY OF SECTION 3A IN THE SPACE PROVIDED AT THE TOP OF EACH PAGE.

G CBI **3A-1.** Attach a process flow diagram (PFD) that shows this wastewater treatment system and the water flow through this treatment system. You are **NOT** required to create a new PFD if an existing diagram will suffice. Number the diagram in the upper right corner, and include your site ID number (as shown on the cover page of Part A). Specific instructions for the inclusion of the PFD, along with example diagrams, are provided below.

For each unit shown on the diagram, identify the unit using the codes from the list of Wastewater Treatment Unit Codes on the following page. Use a numbering scheme for all units shown on the diagram so each unit has a unique number. For example, if a diagram shows one cooling tower and two primary clarifiers, identify these units as: CT-1, C1-1, and C1-2. See the following example figures for further clarification. **Flow rates are NOT required on the diagram.**

Provide the PFD number assigned to this wastewater treatment system PFD. **If the wastewater treatment system is already shown on a PFD provided elsewhere in this survey, provide the PFD number and review the following list for completeness.** Because in-process wastewater treatment systems, pretreatment systems, and end-of-pipe wastewater treatment systems are often linked, EPA expects that these systems may be shown together on existing figures and they may be provided in that form. If you need assistance, call the Technical Information Help Line at (800) 357-7075.

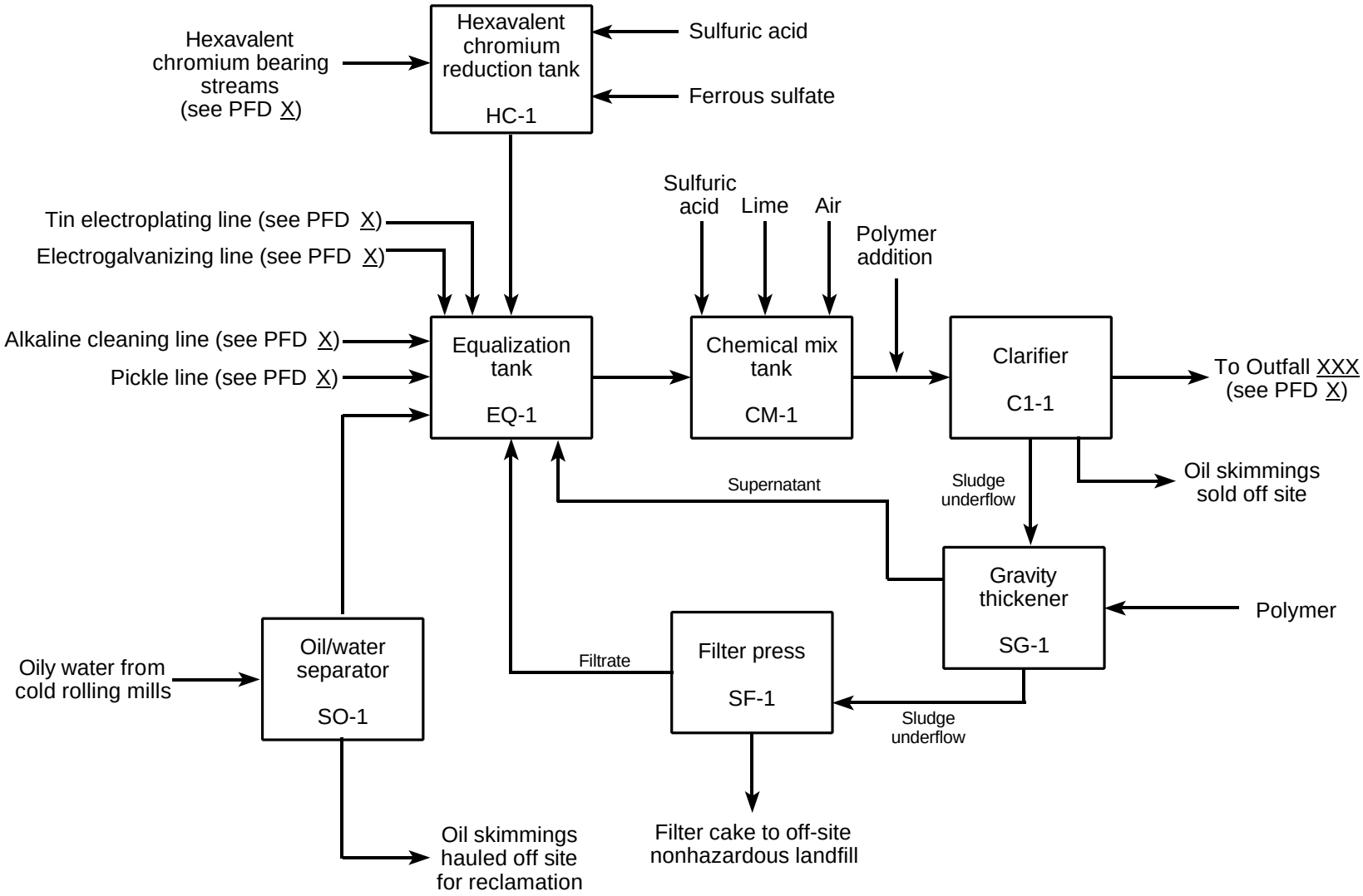
Wastewater treatment system PFD-_____

Process Flow Diagram Checklist

Be sure...	✓
All sources entering the treatment system are identified and labeled. Sources include but are not limited to: process wastewater (specify process), storm water, effluent from other treatment systems (specify PFD number for other treatment systems, including Section 2 PFDs), ground water, noncontact cooling water, utility wastewater, and landfill leachate.	**G**
All treated wastewater destinations are identified and labeled. Destinations include surface waters (specify name), POTWs, reuse in other manufacturing processes (specify processes), other wastewater treatment systems (specify systems), and on-site and off-site disposal locations.	**G**
All appropriate wastewater treatment unit codes (listed on the following page) have been added to the diagram.	**G**
Return streams for all filtrates, supernatants, or other recycle streams are labeled.	**G**
Significant losses of water (e.g., evaporation) are shown.	**G**
Sludges, oils, and other wastes leaving the system and their destinations are identified and labeled.	**G**
Permit monitoring locations and outfall numbers are identified and labeled.	**G**
The PFD number and your site ID number are written on the diagram.	**G**
If you believe that the diagram should be treated as confidential, stamp it "Confidential" or write "Confidential" or "CBI" across the top. If any diagram is not marked "Confidential", it will be considered nonconfidential under 40 CFR Part 2, Subpart B.	**G**

WASTEWATER TREATMENT UNIT CODES					
AC	=	Activated carbon system	IN	=	Incinerator or combustor
AE	=	Aeration tank or basin (not used for biological treatment)	IP	=	Inclined plate separator
BT	=	Biological treatment tank - *(specify)*:	IE	=	Ion exchange system
CM	=	Chemical mix tank	NE	=	Neutralization or pH adjustment tank
C1	=	Clarifier - primary	OS	=	Oil skimmer
C2	=	Clarifier - secondary	SA	=	Oil/water separator - American Petroleum Institute (API)
CL	=	Classifier	SO	=	Oil/water separator - other *(specify)*:
CP	=	Cooling pond	RP	=	Retention pond (not used for biological treatment)
CT	=	Cooling tower	RO	=	Reverse osmosis system
CD	=	Cyanide destruction system	PS	=	Scale pit - with oil skimming
CY	=	Cyanide precipitation system	PN	=	Scale pit - without oil skimming
DF	=	Dissolved air flotation tank or basin	BS	=	Sedimentation basin - with pipe/tube settlers
EL	=	Earthen lagoon - lined (not used for biological treatment)	BN	=	Sedimentation basin - without pipe/tube settlers
EU	=	Earthen lagoon - unlined (not used for biological treatment)	SC	=	Sludge dewatering unit - centrifuge
EQ	=	Equalization tank or basin	SF	=	Sludge dewatering unit - filter press
EV	=	Evaporator	SG	=	Sludge dewatering unit - gravity thickener
FM	=	Filter - multimedia	SB	=	Sludge dewatering unit - sludge bed
FS	=	Filter - sand	SD	=	Sludge dewatering unit - sludge dryer
FO	=	Filter - other *(specify)*:	SV	=	Sludge dewatering unit - vacuum drum filter
FC	=	Flocculation/coagulation tank	SO	=	Sludge dewatering unit - other *(specify)*:
HE	=	Heat exchanger, noncontact	SP	=	Spray ponds
HC	=	Hexavalent chromium reduction tank	OO	=	Other *(specify)*:

Site ID XXXX
PFD 5



Oil Wastewater Pretreatment, Chromium Pretreatment, and Metals End-of-Pipe Treatment
Example Process Flow Diagram

G CBI 3A-2. What is the site designation for this treatment system (e.g., central wastewater treatment system)?

_____

G CBI 3A-3. Indicate the type of this wastewater treatment system, using the previous definitions.

G In-Process Wastewater Treatment System, including recycle systems *(specify the names of the manufacturing process and the in-process treatment system as already provided in Section 2)*:

_____

G Wastewater Pretreatment System

G End-of-Pipe (Final) Wastewater Treatment System

G CBI 3A-4. For all sources to this treatment system, provide the following information:

- The sources of wastewater (e.g., manufacturing process wastewater, manufacturing process noncontact cooling water, utility wastewater, storm water, ground water, landfill leachate, or the effluent from another treatment system). For noncontact cooling water, storm water, and ground water sources, specify the associated manufacturing areas of the mill.
- The estimated average flow rate in gallons per minute (gpm), hours per day (hpd), and days per year (dpy) **OR** if batch, the estimated average flow rate in gallons per day (gpd) and days per year (dpy). You are required to provide best engineering estimates when actual or measured flow data are not available.
- The first treatment unit in this wastewater treatment system that the wastewater source enters. Use the unit codes that were assigned to the units on the process flow diagram (Question 3A-1) and used to provide information in Question 3A-5.

If you need additional space, photocopy this page before writing on it and number each copy of Question 3A-4 in the space provided in the upper right corner. Note: Question 3A-4 is one page long.

Source of Wastewater	Flow Rate			Receiving Treatment Unit Code
Example galvanizing line treatment and recycle system blowdown	63 gpm OR:	24 hpd _____ gpd	365 dpy _____ dpy	C1-1
	_____ gpm OR:	_____ hpd _____ gpd	_____ dpy _____ dpy	
	_____ gpm OR:	_____ hpd _____ gpd	_____ dpy _____ dpy	
	_____ gpm OR:	_____ hpd _____ gpd	_____ dpy _____ dpy	
	_____ gpm OR:	_____ hpd _____ gpd	_____ dpy _____ dpy	
	_____ gpm OR:	_____ hpd _____ gpd	_____ dpy _____ dpy	

3A-5. For this system, use the wastewater treatment unit codes provided in Question 3A-1. In Part a, under "Unit Code", list all wastewater treatment units that were part of the wastewater treatment system as it was configured to operate during **1997**. In Part b, under "Unit Code", list any operable wastewater treatment units which were located at this wastewater treatment system but were **NOT** part of the system as it was configured to operate during **1997**. For each unit, indicate whether it is used on a batch or continuous basis, provide the unit's design capacity flow, and provide the year of installation. **If you need additional space, photocopy this page before writing on it and number each copy of Question 3A-5 in the space provided in the upper right corner. Note: Question 3A-5 is one page long.**

G CBI a.

Unit Code	Batch or Continuous	Design Capacity Flow	Year Installed
Example C1-1	G Batch	_____ gal/batch _____ batch/day	1991
	☒ Continuous	60 gpm	
	G Batch	_____ gal/batch _____ batch/day	
	G Continuous	_____ gpm	
	G Batch	_____ gal/batch _____ batch/day	
	G Continuous	_____ gpm	
	G Batch	_____ gal/batch _____ batch/day	
	G Continuous	_____ gpm	
	G Batch	_____ gal/batch _____ batch/day	
	G Continuous	_____ gpm	
	G Batch	_____ gal/batch _____ batch/day	
	G Continuous	_____ gpm	
	G Batch	_____ gal/batch _____ batch/day	
	G Continuous	_____ gpm	
	G Batch	_____ gal/batch _____ batch/day	
	G Continuous	_____ gpm	

G CBI b.

Unit Code	Batch or Continuous	Design Capacity Flow	Year Installed
Example C1-1	G Batch	_____ gal/batch _____ batch/day	1991
	☒ Continuous	60 gpm	
	G Batch	_____ gal/batch _____ batch/day	
	G Continuous	_____ gpm	
	G Batch	_____ gal/batch _____ batch/day	
	G Continuous	_____ gpm	
	G Batch	_____ gal/batch _____ batch/day	
	G Continuous	_____ gpm	

G CBI **3A-6.** Provide actual operating and maintenance (O&M) costs paid and rates for this system during **1997**. If actual costs and rates are not available, provide best estimates. Include operating labor, maintenance, sampling/monitoring costs, chemical costs, energy costs, steam costs, and sludge and oil disposal fees. Also include rates of labor, energy, steam, and sludge and oil disposal fees.

O&M Category	Cost for 1997	Rate
Labor (operating and maintenance)	$	$ per hour (average rate of labor)
Maintenance (materials and vendors)	$	
Sampling/Monitoring Costs	$	
Chemical Costs	$	
Energy Costs - Power	$	$ per kwh
Energy Costs - Gas	$	$ per **G** mmcf **G** million btu
Energy Costs - Fuel Oil	$	$ per **G**gallon **G**barrel
Energy costs - Other *(specify)*:	$	$ per *(specify unit of measurement)*:
Steam Costs	$	$ per pound
RCRA-Hazardous Sludge Disposal	$	$ per **G**gallon **G**ton
Nonhazardous Sludge Disposal	$	$ per **G**gallon **G**ton
Other Sludge Disposal, if other classifications apply to your area *(specify type)*:	$	$ per **G**gallon **G**ton
Oil Disposal	$	$ per **G**gallon **G**ton
Other *(specify)*:	$	
Other *(specify)*:	$	
Other *(specify)*:	$	
Other *(specify)*:	$	

RCRA = Resource Conservation and Recovery Act
kwh = kilowatt hour
barrel = 42 gallons
mmcf = million cubic feet
btu = British thermal unit

G CBI **3A-7.** Provide information on any recent modifications which have occurred at this wastewater treatment system since 1993. Recent modifications may include the replacement, upgrade, or addition of one or more treatment units. Explain why treatment units have been replaced, upgraded, or added (e.g., compliance with water quality limits).

Shut Down or Modification?	Date	Description

G CBI **3A-8.** Identify **ALL** chemical additions to this treatment system, completing one row for each chemical. Provide the chemical name (including vendor name and product code, if applicable), the purpose of the chemical, the consumption rate of the undiluted chemical, and the receiving treatment unit code from Question 3A-1. **If you need additional space, photocopy this page before writing on it and number each copy of Question 3A-8 in the space provided in the upper right corner. Note: Question 3A-8 is one page long.**

Chemical	Purpose	Consumption Rate	Receiving Treatment Unit Code(s)
Example Polymer (XYZ Company; product AB40)	improve settling	_____ gal/day 50 lbs/day	C1-1 C1-2
		_____ gal/day _____ lbs/day	
		_____ gal/day _____ lbs/day	
		_____ gal/day _____ lbs/day	
		_____ gal/day _____ lbs/day	
		_____ gal/day _____ lbs/day	
		_____ gal/day _____ lbs/day	

G CBI **3A-9.** Identify **ALL** discharges from this treatment system, **including treated wastewater, sludge, and oil discharges** and provide the treatment unit code (from Question 3A-1) for the unit which releases this discharge. Provide actual or estimated flow or discharge rates for each discharge in gallons per minute (gpm), hours per day (hpd), days per year (dpy), pounds per day (lbs/day), or tons per day (tons/day). Provide the destination of each discharge (e.g., effluent discharged to river, dewatered sludge landfilled on site in a nonhazardous landfill, waste oil hauled off site for reclamation). **If you need additional space, photocopy this page before writing on it and number each copy of Question 3A-9 in the space provided in the upper right corner. Note: Question 3A-9 is one page long.**

Discharge and Treatment Unit Code	Flow or Discharge Rate	Destination
Example Final Effluent CT-1	60 gpm 24 hpd 365 dpy OR: _____ gpd _____ dpy	Mill Creek via Outfall 002
Wastewater		
	_____ gpm _____ hpd _____ dpy OR: _____ gpd _____ dpy	
	_____ gpm _____ hpd _____ dpy OR: _____ gpd _____ dpy	
	_____ gpm _____ hpd _____ dpy OR: _____ gpd _____ dpy	
	_____ gpm _____ hpd _____ dpy OR: _____ gpd _____ dpy	
	_____ gpm _____ hpd _____ dpy OR: _____ gpd _____ dpy	
Oil Wastes		
	_____ gpd _____ dpy _____ % moisture	
	_____ gpd _____ dpy _____ % moisture	
Solid Waste - Wet Weight		
	_____ lbs/day or _____ tons/day _____ dpy _____ % solids	
	_____ lbs/day or _____ tons/day _____ dpy _____ % solids	

G CBI **3A-10.** List **ALL** metal, organic, and conventional (e.g., total suspended solids (TSS), oil and grease) pollutant parameters which this system is designed to treat. **If you need additional space, photocopy this page before writing on it and number each copy of Question 3A-10 in the space provided in the upper right corner. Note: Question 3A-10 is one page long.**

SECTION 3B. PERMIT AND GENERAL DISCHARGE INFORMATION

TECHNICAL INFORMATION HELP LINE: (800) 357-7075

G CBI **3B-1.** How many discharge locations (outfalls) and other permit monitoring locations are present at this site? Include discharge locations discharging to surface waters, publicly owned treatment works (POTWs), privately owned treatment works (PrOTWs), and internal permit monitoring locations. __________

For each discharge location (outfall) and permit monitoring location, complete one row of this table, and provide the site designation of the outfall or internal permit monitoring location, the type(s) of wastewater discharged, the discharge destination (e.g., river, POTW, or other monitoring location designation), the dry weather flow rate, and the period of discharge. **If you need additional space, photocopy this page before writing on it**.

Outfall or Internal Permit Monitoring Location Designation	Type(s) of Wastewater	Discharge Destination	Dry weather flow rate (gal/day)	Period of Discharge (days/year)
	G Process wastewater G Ground water G Landfill leachate G Noncontact cooling water G Sanitary wastewater G Other: G Storm water associated with industrial activity G Storm water not associated with industrial activity			
	G Process wastewater G Ground water G Landfill leachate G Noncontact cooling water G Sanitary wastewater G Other: G Storm water associated with industrial activity G Storm water not associated with industrial activity			
	G Process wastewater G Ground water G Landfill leachate G Noncontact cooling water G Sanitary wastewater G Other: G Storm water associated with industrial activity G Storm water not associated with industrial activity			
	G Process wastewater G Ground water G Landfill leachate G Noncontact cooling water G Sanitary wastewater G Other: G Storm water associated with industrial activity G Storm water not associated with industrial activity			
	G Process wastewater G Ground water G Landfill leachate G Noncontact cooling water G Sanitary wastewater G Other: G Storm water associated with industrial activity G Storm water not associated with industrial activity			
	G Process wastewater G Ground water G Landfill leachate G Noncontact cooling water G Sanitary wastewater G Other: G Storm water associated with industrial activity G Storm water not associated with industrial activity			
	G Process wastewater G Ground water G Landfill leachate G Noncontact cooling water G Sanitary wastewater G Other: G Storm water associated with industrial activity G Storm water not associated with industrial activity			

G CBI **3B-2.** Attach a simplified process flow diagram(s) (PFD) that shows all permit monitoring locations and outfalls. You are **NOT** required to create a new PFD if an existing diagram will suffice. Number the diagram in the upper right corner, and include your site ID number (as shown on the cover page of Part A). Specific instructions for including the PFD(s), along with an example diagram, are provided below. **Flow rates are NOT required on the diagrams.**

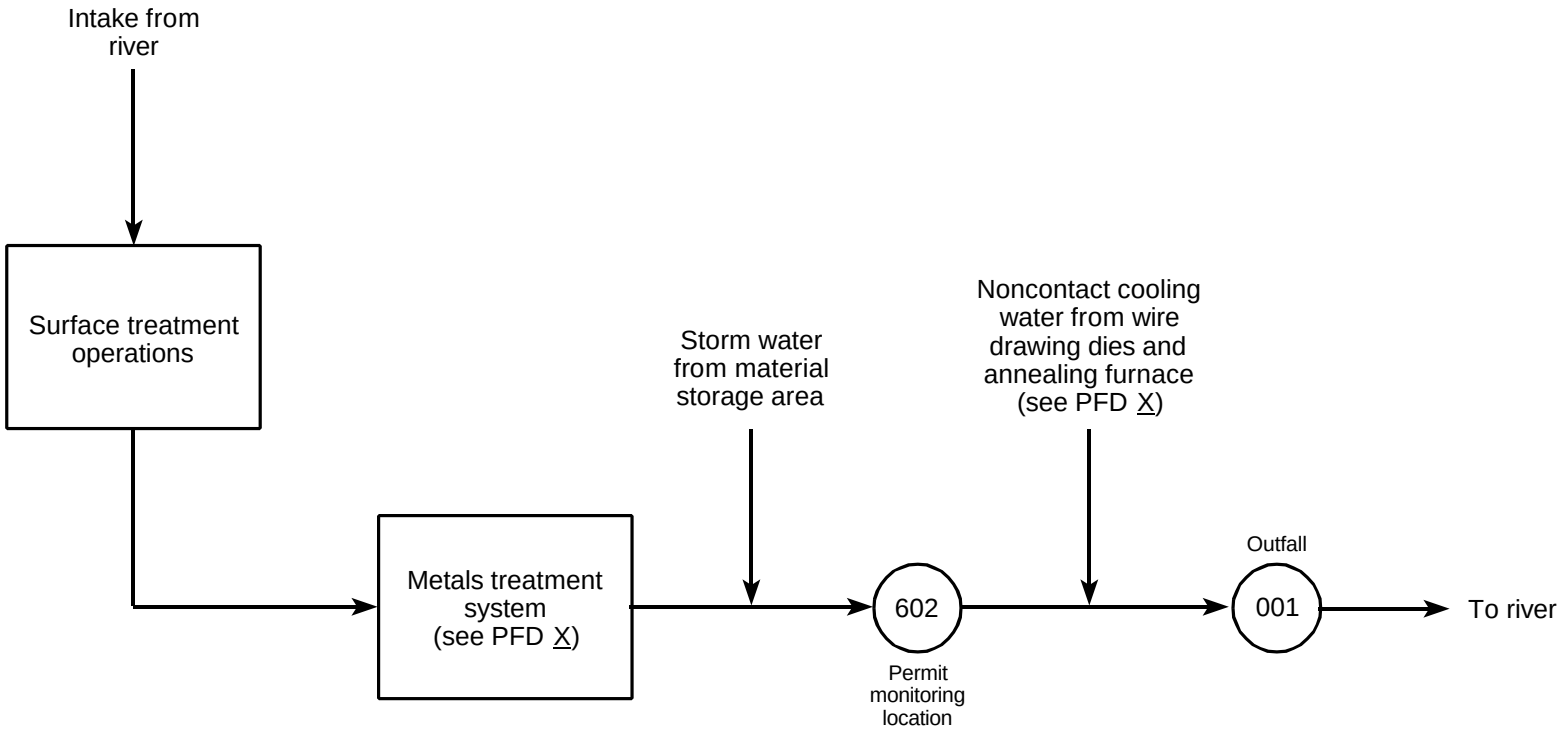
Provide the PFD number(s) assigned to the diagram(s) showing all permit monitoring locations and outfalls. **If the permit monitoring locations and outfalls are already shown on a PFD provided elsewhere in this survey, provide the PFD number(s) and review the following list for completeness.** If you need assistance, call the Technical Information Help Line at (800) 357-7075.

Outfall or Permit Monitoring Location PFD-_____

Process Flow Diagram Checklist

Be sure...	✓
Each permit monitoring location or outfall is labeled with the outfall designation.	**G**
All sources to the location or outfall, including noncontact cooling water, storm water, and ground water, are labeled.	**G**
All discharge destinations (e.g., to POTW, river, or other monitoring locations) are labeled.	**G**
For outfalls that discharge only storm water not associated with industrial activity, a single representative diagram can be provided (list all represented outfall numbers on the diagram).	**G**
The PFD number and your site ID number are written on the diagram(s).	**G**
If you believe that the diagram should be treated as confidential, stamp it "Confidential" or write "Confidential" or "CBI" across the top. If any diagram is not marked "Confidential", it will be considered nonconfidential under 40 CFR Part 2, Subpart B.	**G**

Site ID XXXX
PFD 6



Example Outfall Diagram

3B-3

3B-3.a. Does your site discharge **process wastewater** by pipeline, sewer, or other conveyance to surface water?

G Yes

G No

b. Does your site have a National Pollutant Discharge Elimination System (NPDES) permit or a state-issued water discharge permit which authorizes and/or regulates the discharge of process or nonprocess wastewaters?

G Yes (continue)

G No (SKIP to Question 3B-4)

You may opt to attach a copy of your site's permit to the survey in lieu of answering a number of the permit-related questions in this section. This includes Question 3B-3.c. below. If you decide to attach a copy of your site's NPDES permit, include your site ID number (as shown on the cover page of Part A) in the upper right corner, check (✓) the box to the right, and SKIP to Question 3B-4. If you do not decide to attach a copy of your site's permit to the survey, continue to Question 3B-3.c. **G**

c. For the permit, provide the name and type (e.g., lake, river) of receiving water, the Federal NPDES permit number and/or the state issued water discharge permit number, and the expiration date(s) of the permit(s).

_____
Name and type of receiving water

_____ _____
Federal NPDES Permit Number Expiration Date

_____ _____
State Issued Water Discharge Permit Number Expiration Date

3B-4.a. Indicate the type of facility to which your site discharges **process wastewater** by pipeline, sewer, or other conveyance. Check (✓) **ALL** that apply.

G Publicly owned treatment works (POTW)

G Privately owned treatment works (PrOTW)

G Process wastewaters are **NOT** discharged to a POTW or a PrOTW (SKIP to Question 3B-5)

b. Does your site have a treatment works-written permit or agreement which includes the discharge of process or nonprocess wastewater?

G Yes (continue)

G No (SKIP to Question 3B-4.c.)

You may opt to attach a copy of your site's permit or agreement to the survey in lieu of answering a number of the permit-related questions in this section. This includes Question 3B-4.c. below. If you decide to attach a copy of your site's permit or agreement, include your site ID number (as shown on the cover page of Part A) in the upper right corner, check (✓) the box to the right, and SKIP to Question 3B-5. If you do not decide to attach a copy of your site's permit or agreement to the survey, continue to Question 3B-4.c. **G**

3B-4c. Provide the name, address, telephone number, and the name of your contact at the POTW or PrOTW. Provide the permit number provided by the POTW or PrOTW and the expiration date (if applicable), and, if known, the NPDES permit number of the permit issued to the POTW or PrOTW.

POTW Name	Name of POTW Contact
Street Address	( ) Telephone Number
Street Address continued	Site Discharge Permit Number (if applicable)
City	Expiration Date (if applicable)
State Zip Code	NPDES Permit Number of the POTW (if known)

3B-5.a. Was your site regulated under one or more current federal categorical effluent limitations guidelines during **1997**? Federal categorical effluent limitations guidelines are developed by the U.S. Environmental Protection Agency to be used by regional, state, and local permitting authorities as a basis for writing permits for specific industries (see 40 CFR Chapter I, Subchapter N).

G Yes (continue)
G No (SKIP to Question 3B-6)

b. Indicate which federal categorical effluent limitations guidelines regulate your site. Check (✓) **ALL** that apply.

G Iron and Steel, 40 CFR Part 420
G Metal Finishing, 40 CFR Part 433
G Electroplating, 40 CFR Part 413
G Ferroalloy, 40 CFR Part 424
G Metal Molding and Casting, 40 CFR Part 464
G Coil Coating, 40 CFR Part 465
G Other *(specify)*: _____

STOP

HOW MANY **PERMIT MONITORING LOCATIONS CONTAINING PROCESS WASTEWATER OR STORM WATER ASSOCIATED WITH INDUSTRIAL ACTIVITY** WERE ON SITE DURING **1997**? __________

COMPLETE A COPY OF QUESTION 3B-6 FOR **EACH** PERMIT MONITORING LOCATION DISCHARGING PROCESS WASTEWATER OR STORM WATER ASSOCIATED WITH INDUSTRIAL ACTIVITY. NUMBER EACH COPY OF QUESTION 3B-6 IN THE SPACE PROVIDED IN THE UPPER RIGHT CORNER. NOTE: QUESTION 3B-6 IS ONE PAGE LONG.

G CBI **3B-6.**a. What is the site designation for this permit monitoring location (e.g., Outfall 001)? The designation should correspond with a response to Question 3B-1. ____

G CBI b. If you indicated in Question 3B-3 or 3B-4 that you were attaching a copy of your site's NPDES and/or state issued permit, POTW permit, or PrOTW agreement to the survey, you need only fill in the first column and the last two columns in the table below. In this case, provide in the first column the list of parameters which have limits which are not based on the effluent limitations guidelines in 40 CFR Part 420 for this permit monitoring location. Indicate whether each limit is water quality-based or local by checking the appropriate boxes in the last two columns of the table below. Note that this information is not usually contained in the permit.

If your permit has an accompanying fact sheet, however, which does contain this information, you may attach a copy of the fact sheet along with your permit in lieu of providing the information below. If you decide to attach a copy of the fact sheet, include your site ID number (as shown on the cover page of Part A) in the upper right corner, check (✓) the box to the right, and SKIP to Question 3B-7. G

If you did not attach a copy of your site's permit to the survey for this permit monitoring location, provide the list of parameters, including temperature, which are regulated by your NPDES and/or state issued permit, POTW permit, or PrOTW agreement. For each regulated parameter, provide the monthly average and daily maximum limits; indicate whether the pollutant has a monitor-only requirement (write NA for monthly average and daily maximum); indicate whether the limits are water quality-based (if directly discharged); and indicate whether the limits are local limits (if discharged to a POTW or PrOTW). Specify the units of measurements for the permit limits.

	Permit Limit				
Regulated Parameter	**Monthly Average *(specify units)***	**Daily Maximum *(specify units)***	**Monitoring Only?**	**Water Quality-Based?**	**POTW or PrOTW Local Limits?**
			G Yes G No	G Yes G No	G Yes G No
			G Yes G No	G Yes G No	G Yes G No
			G Yes G No	G Yes G No	G Yes G No
			G Yes G No	G Yes G No	G Yes G No
			G Yes G No	G Yes G No	G Yes G No
			G Yes G No	G Yes G No	G Yes G No
			G Yes G No	G Yes G No	G Yes G No
			G Yes G No	G Yes G No	G Yes G No
			G Yes G No	G Yes G No	G Yes G No
			G Yes G No	G Yes G No	G Yes G No
			G Yes G No	G Yes G No	G Yes G No
			G Yes G No	G Yes G No	G Yes G No

G CBI **3B-7.**a. Indicate whether there are any available parcels of on-site land appropriate for the construction of additional wastewater treatment facilities.

G Yes (continue)

G No (SKIP to Section 3C)

G CBI b. For up to three parcels of land on site, provide a general description of the location of each parcel with respect to a manufacturing process or a wastewater treatment system, and the size of each parcel.

Parcel of Land	General Description of the Location	Size of Parcel (acres)
1		
2		
3		

SECTION 3C. MONITORING DATA

TECHNICAL INFORMATION HELP LINE: (800) 357-7075

Section 3C requires summary information for data collected by your site, including (1) any data collected simultaneously at both influent and effluent streams from a wastewater treatment system or a treatment unit (Question 3C-1), (2) any other wastewater characterization data collected at nonpermitted monitoring locations (Question 3C-1), and (3) monitoring data your site may have collected for permit monitoring requirements (Question 3C-2).

Each question in this section requires you to assign a unique sampling point (SP) number to each sampling location, identify the location on the appropriate PFD with this SP number, and provide the SP number and the PFD number at the top of the table for each question. At the top of each table, provide (1) the treatment unit codes (from Question 3A-5) from where the wastewater stream is an effluent (e.g., hot strip mill scale pit PS-1) and to where the stream is an influent (e.g, terminal treatment equalization EQ-1), **OR** (2) the outfall to where the wastewater stream is discharged (e.g., Outfall 001 - Mill Creek). Check (✓) the appropriate choice and provide the source and/or destination of the stream.

Each question contains a table to specify the following information:

- The pollutant analyzed (using the provided codes shown on the following page);
- The EPA analytical method used;
- Whether the samples were collected as grabs or as composites;
- The total number of samples collected at that sampling point for that pollutant;
- The number of samples in which the pollutant was not detected;
- The typical detection limit or range of detection limits for that sampling point for that pollutant;
- The average concentration of the pollutant;
- The calculation methodology used to determine the average concentration when some or all measurements were not detected (see the following detailed description);
- The maximum concentration of the pollutant;
- The minimum concentration of the pollutant; and
- The average flow rate at this sampling point during the sampling period for that pollutant.

At the top of the table for Question 3C-1, you are also required to provide the range of dates in which data were collected. Complete the table, one page per sampling point, one row per pollutant parameter. If you have provided these data elsewhere in the survey, do **NOT** repeat it in this question. Indicate that the data is provided elsewhere on the Comments page for this section.

Pollutant Parameter Codes

Pollutant Parameter Code	Pollutant Parameter Name	Pollutant Parameter Code	Pollutant Parameter Name
P-1	Aluminum, Total	P-20	Phenols (4AAP)
P-2	Ammonia - N	P-21	Temperature
P-3	Benzene	P-22	Tetrachloroethylene
P-4	Benzo(a)pyrene	P-23	Tin, Total
P-5	Biochemical Oxygen Demand (BOD)	P-24	Total Dissolved Solids (TDS)
P-6	Chemical Oxygen Demand (COD)	P-25	Total Petroleum Hydrocarbons (TPH), SGT-HEM[2]
P-7	Chromium, Total	P-26	Total Recoverable Petroleum Hydrocarbons
P-8	Copper, Total	P-27	Total Residual Chlorine
P-9	Cyanide, Amenable	P-28	Total Suspended Solids (TSS)
P-10	Cyanide, Total	P-29	Zinc, Total
P-11	Hexavalent Chromium	P-30	Other *(specify)*: _____
P-12	Iron, Total	P-31	Other *(specify)*: _____
P-13	Lead, Total	P-32	Other *(specify)*: _____
P-14	Mercury, Total	P-33	Other *(specify)*: _____
P-15	Naphthalene	P-34	Other *(specify)*: _____
P-16	Nickel, Total	P-35	Other *(specify)*: _____
P-17	Oil and Grease, HEM[1]	P-36	Other *(specify)*: _____
P-18	Oil and Grease, Total Recoverable	P-37	Other *(specify)*: _____
P-19	pH	P-38	Other *(specify)*: _____

[1]N-Hexane Extractable Material (HEM)
[2]Silica Gel Treated N-Hexane Extractable Material (SGT-HEM)

Not Detected (ND) Calculation Method

To complete Questions 3C-1 and 3C-2, you are required to provide the calculation method you used to calculate the average concentration of each pollutant parameter when some or all measurements were not detected (ND). Since laboratories may report pollutant parameters as ND, EPA expects that you will also use the NDs in the calculation of the average concentration. There are several methods which may be used to calculate an average pollutant parameter concentration when ND values have been reported by the laboratory. EPA requires you to identify which method you used to calculate an average pollutant parameter concentration. The following is a description of the different types of detection limits, the ND calculation methods, and examples:

- The method detection limit is the detection limit set by the analytical methods in 40 CFR Part 136.
- The sample detection limit is the detection limit set by the matrix complexity and reported to you by the laboratory.

In calculating an average pollutant concentration, the following methods of including ND sample results are typically used:

- ND value set equal to the method detection limit;
- ND value set equal to one-half of the method detection limit;
- ND value set equal to the sample detection limit;
- ND value set equal to one-half of the sample detection limit; and
- ND value set equal to zero (0).

EXAMPLE: Suppose a site analyzes two samples for benzo(a)pyrene. Benzo(a)pyrene is detected in the first sample at 100 ppb, but is not detected in the second sample. The analytical laboratory reports the second result as <50 ppb, where the method detection limit is 10 ppb, and the sample detection limit is 50 ppb. Depending on which calculation method is used, the following averages could be calculated.

Result 1	Result 2	Method	Average
100 ppb	ND(50 ppb)	Used method detection limit (10 ppb)	55 ppb
100 ppb	ND(50 ppb)	Used one-half method detection limit (5 ppb)	52.5 ppb
100 ppb	ND(50 ppb)	Used sample detection limit (50 ppb)	75 ppb
100 ppb	ND(50 ppb)	Used one-half sample detection limit (25 ppb)	62.5 ppb
100 pbb	ND(50 ppb)	Used zero (0)	50 ppb

Use the following list of ND Calculation Method Codes to complete Questions 3C-1 and 3C-2:

ND Calculation Method Code	ND Calculation Method
ND-1	Used method detection limit
ND-2	Used one-half of the method detection limit
ND-3	Used sample detection limit
ND-4	Used one-half of the sample detection limit
ND-5	Used zero (0)
ND-6	Other *(specify)*:

Submittal of Hard Copy and Electronic Data

If you have any of the data requested in Questions 3C-1 or 3C-2 readily available in the requested format (see the questions), you may attach it to the survey in lieu of responding to each question; write your site ID (shown on the cover page of Part A) and the question number on the upper right corner of each attachment. If you have any of the data requested in Questions 3C-1 or 3C-2 readily available in an electronic format (e.g., spreadsheet), please include a disk with the hard copy output of the electronic file with your survey submittal. Indicate below whether you are submitting hard copies of the data requested in Questions 3C-1 and 3C-2 in lieu of filling out these questions. Also indicate whether you are including data in an electronic format in addition to the hard copies; specify the software and version.

Question	Hard Copy	Electronic
3C-1	G	G
3C-2	G	G

Software and version: _____

G CBI **3C-1.**a. Has your site collected any data for any parameter from **NONPERMITTED MONITORING LOCATIONS** in this system by EPA-approved methods as described in 40 CFR Part 136 **during 1997**? **DO NOT INCLUDE DATA COLLECTED FOR THE PURPOSE OF PERMIT COMPLIANCE**; NPDES permit compliance data are requested in Question 3C-2.

- **G** Yes (continue)
- **G** No (SKIP to Question 3C-2)

G CBI b. Indicate the type of data collected from nonpermitted monitoring locations in this system. Check (✓) **ALL** that apply.

- **G** Data collected simultaneously at both influent and effluent streams from this system or any unit in this system.
- **G** Wastewater characterization analytical data collected from separate nonpermitted monitoring location(s).

G CBI c. Has your site collected any data for any parameter from nonpermitted monitoring locations in this system by EPA-approved methods as described in 40 CFR Part 136 **during 1995 or 1996**?

- **G** Yes
- **G** No

Copy _____ of _____

G CBI **3C-1.**d. **(cont.)** Provide summary information for any parameter collected simultaneously at both influent and effluent streams from this system or any unit in this system **OR** for any wastewater characterization analytical data collected at nonpermitted monitoring locations at this system by EPA-approved methods as described in 40 CFR Part 136 during 1997. Complete a copy of Question 3C-1.d. for each separate location where data were collected. Number each copy in the space provided in the upper right corner.

SP-_____ G **Effluent from** _______________ **and influent to** _______________
PFD-____ G **Discharge to** _______________ **Range of Dates Collected (mm/dd/yy)** _______________

Pollutant Parameter Code	EPA Analytical Method	Grab (G) or Composite (C)	Total Number of Samples	Number of Samples Below Detection Limit	Typical Detection Limit or Range	Average Concentration (mg/L)	ND Calculation Method Code	Maximum Concentration (mg/L)	Minimum Concentration (mg/L)	Average Flow Rate During This Range of Dates
		G G G C								gpd
		G G G C								gpd
		G G G C								gpd
		G G G C								gpd
		G G G C								gpd
		G G G C								gpd
		G G G C								gpd
		G G G C								gpd
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		G G G C								gpd
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		G G G C								gpd
		G G G C								gpd
		G G G C								gpd
		G G G C								gpd

HOW MANY **PERMIT MONITORING LOCATIONS** WERE LOCATED ON YOUR SITE DURING **1997**? _____

COMPLETE A COPY OF QUESTION 3C-2 FOR **EACH** PERMIT MONITORING LOCATION. NUMBER EACH COPY OF QUESTION 3C-2 IN THE SPACE PROVIDED IN THE UPPER RIGHT CORNER. NOTE: QUESTION 3C-2 IS ONE PAGE LONG.

G CBI **3C-2.**a. What is the site designation for this permit monitoring location (e.g., Outfall 001)? Designations should correspond with response(s) to Question 3B-1. _____

Provide summary information for **ALL** analytical data collected from this permit monitoring location during **1997**. The summary information should be based on data collected for the purpose of permit compliance and any other wastewater characterization data collected using EPA-approved methods. For the pollutant parameter code and the ND calculation method code, refer to the lists on the first page of this section. **If you need additional space for this permit monitoring location, photocopy this page before writing on it.**

SP-_____ **G Effluent from _____ and influent to _____**
PFD-____ **G Discharge to _____**

Pollutant Parameter Code	EPA Analytical Method	Grab (G) or Composite (C)	Total Number of Samples	Number of Samples Below Detection Limit	Typical Detection Limit or Range	Average Concentration (mg/L)	ND Calculation Method Code	Maximum Concentration (mg/L)	Minimum Concentration (mg/L)	Average Flow Rate During 1997
		G G **G** C								gpd
		G G **G** C								gpd
		G G **G** C								gpd
		G G **G** C								gpd
		G G **G** C								gpd
		G G **G** C								gpd
		G G **G** C								gpd
		G G **G** C								gpd
		G G **G** C								gpd
		G G **G** C								gpd
		G G **G** C								gpd
		G G **G** C								gpd
		G G **G** C								gpd

G CBI b. What percentage of process wastewater at this permit monitoring location is from iron and steel operations? _____ %

COMMENTS FOR THE SHORT FORM OF THE COLLECTION OF 1997 IRON AND STEEL INDUSTRY DATA

Cross reference your comments by question number and indicate the confidential status of your comment by checking (✓) the box in the column titled "CBI" (Confidential Business Information). If you need additional space, photocopy this page before writing on it and number each copy in the space provided in the upper right corner.

Question Number	CBI	Comment
	G	
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ATTACH FACILITY ADDRESS
LABEL HERE

U.S. ENVIRONMENTAL PROTECTION AGENCY
COLLECTION OF 1997 IRON AND STEEL INDUSTRY DATA
PART B: FINANCIAL AND ECONOMIC INFORMATION
(SHORT FORM)

Form Approved
OMB Control No. 2040-0193
Approval Expires 08/31/2001

U. S. ENVIRONMENTAL PROTECTION AGENCY
COLLECTION OF 1997 IRON AND STEEL INDUSTRY DATA
(SHORT FORM)

PART B: FINANCIAL AND ECONOMIC INFORMATION

TABLE OF CONTENTS

INTRODUCTION

The U.S. Environmental Protection Agency (EPA) is conducting a survey of the Iron and Steel Industry as part of its effort to review and revise, as appropriate, effluent limitations guidelines and standards for this industry. This survey requests data on sites engaged in iron or steel manufacturing, forming, and finishing. Sites engaged in coke manufacturing are also included. The technical data collected in Part A of this survey will be used to determine the production rates of industry, use of water for processes, rates of wastewater generation, and the practices of wastewater management, treatment, and disposal. The financial and economic data collected in Part B of this survey will be used to characterize the economic status of the industry and to estimate the possible economic impacts of wastewater regulations.

COMPLETION OF THE SURVEY

The survey is divided into two parts: Part A: Technical Information, and Part B: Financial and Economic Information. Each part has its own general instructions and certification statement. The parts are divided into the following sections:

PART A: TECHNICAL INFORMATION

SECTION 1: GENERAL SITE INFORMATION
SECTION 2: MANUFACTURING PROCESS INFORMATION
SECTION 3: IN-PROCESS AND END-OF-PIPE WASTEWATER TREATMENT AND OUTFALL INFORMATION

PART B: FINANCIAL AND ECONOMIC INFORMATION

SECTION 1: SITE IDENTIFICATION AND FINANCIAL INFORMATION

Each section should be completed by the person(s) most knowledgeable about the information requested. All sites must have the corporate official or designee responsible for directing or supervising Part B: Financial and Economic Information of the survey response sign the Certification Statement (located on page iii) to verify and validate the information provided, or to certify that this site does not engage in iron or steel manufacturing, forming, or finishing, or coke manufacturing.

EPA has prepared this survey to be applicable to a variety of sites; therefore, not all of the questions will apply to each site. Complete each applicable item in the survey. In the event that exact data are not available, provide best financial estimates and note the methods that were used to make the estimates on the Comments page located at the end of Section 1. General instructions are provided on page v, and additional instructions are provided with each question. A complete set of definitions for Part B can be found in the Definitions Section, starting on page vi.

If you would like to request a WordPerfect 5.1 version of the survey instrument, you must do so **in writing** within 30 days of receipt of this survey (see address under **WHERE TO RETURN THE SURVEY** on page iii). You are responsible for submitting a properly formatted hard copy of the survey by the due date which matches this survey's format. The electronic formatting of this survey is complex and may require more experienced clerical support. **Improperly formatted survey responses will be returned to the respondent!**

EPA Iron and Steel Survey Help Lines

Information about Part A: Technical Information

Eastern Research Group, Inc. . . . . (800) 357-7075
Internet Electronic Mailing Address . . . . . steel_helpline@erg.com

Information about Part B: Financial and Economic Information

Eastern Research Group, Inc. . . . . (888) 308-9455
Internet Electronic Mailing Address . . . . . steel_partb@erg.com

AUTHORITY

This survey is conducted under the authority of Section 308 of the Clean Water Act (Federal Water Pollution Control Act, 33 U.S.C. Section 1318). **All sites that receive this survey must respond to it.** Return all portions of the survey to the EPA **within 90 days** of receiving it. Late filing or failure to comply with these instructions may result in criminal fines, civil penalties, and other sanctions, as provided by law.

If you wish to request an extension for your site or discuss a delivery schedule for a company with multiple sites, you must do so **in writing** within 30 days of receipt of this survey. Send written requests to:

Mr. George Jett
U.S. Environmental Protection Agency (4303)
401 M Street, SW
Washington, DC 20460

Extension requests will be evaluated on a case-by-case basis. Submittal of an extension request to EPA does **not** alter the due date of your survey.

Some sites will also receive a Production, Analytical Data, and/or Wastewater Treatment Capital Cost Follow-Up Survey. Each of these surveys will be sent to approximately 100 sites. These sites will be chosen based on responses to this survey. Your site may receive one or all of these follow-up surveys. EPA estimates the average burden for each of these surveys at about 10 hours. Responses to the follow-up surveys will be due **within 45 days** of receipt.

PROVISIONS REGARDING DATA CONFIDENTIALITY

Regulations governing the confidentiality of business information are contained in the Code of Federal Regulations (CFR) at Title 40 Part 2, Subpart B. You may assert a business confidentiality claim covering part or all of the information you submit, other than effluent data, as described in 40 CFR 2.203(b):

> "(b) *Method and time of asserting business confidentiality claim.* A business which is submitting information to EPA may assert a business confidentiality claim covering the information by placing on (or attaching to) the information, at the time it is submitted to EPA, a cover sheet, stamped or typed legend, or other suitable form of notice complying language such as 'trade secret,' 'proprietary,' or 'company confidential.' Allegedly confidential portions of otherwise nonconfidential documents should be clearly identified by the business, and may be submitted separately to facilitate identification and handling by EPA. If the business desires confidential treatment only until a certain date or until the occurrence of a certain event, the notice should so state."

If no business confidentiality claim accompanies the information when it is received by EPA, EPA may make the information available to the public without further notice.

You may claim as confidential all information included in the response to a question by checking the Confidential Business Information (CBI) box next to each question number for which responses contain CBI. Alternatively, all questions in this survey marked with a CBI check box may be claimed confidential now by checking the box at the end of this paragraph. If you do not check this box, any individual response where "CBI" is **NOT** checked will be considered nonconfidential. Note that you may be required to justify any claim of confidentiality at a later time. Note also that plant effluent data are not eligible for confidential treatment, pursuant to Section 308(b) of the Clean Water Act, and thus will be treated as nonconfidential even if the "all CBI" box is checked.

All Eligible Data are CBI G

Information covered by a claim of confidentiality will be disclosed by EPA only to the extent, and by means of, the procedures set forth in 40 CFR Part 2, Subpart B. In general, submitted information protected by a business confidentiality claim may be disclosed to other employees, officers, or authorized representatives of the United States concerned with implementing the Clean Water Act.

Information covered by a claim of confidentiality will be made available to EPA contractors under EPA Contract Numbers 68-C6-0044, 68-C6-0022, and 68-C4-0046 to enable the contractors to perform the work required by their contracts with EPA. All EPA contracts provide that contractor employees use the information only for the purpose of performing the work required by their contracts and will not disclose any CBI to anyone other than EPA without prior written approval from each affected business or from EPA's legal office. Any comments you may wish to make on this issue must be submitted in writing along with your completed survey.

WHERE TO RETURN THE SURVEY

After completing the survey and certifying the information that it contains, use the enclosed mailing label to mail the completed survey to:

U.S. Environmental Protection Agency
Collection of 1997 Iron and Steel Industry Data
c/o Eastern Research Group, Inc.
14555 Avion Parkway, Suite 200
Chantilly, VA 20151-1102

Retain a copy of the completed survey, including attachments. EPA will review the information submitted and may request your cooperation in answering follow-up questions, if necessary, to complete analyses.

CERTIFICATION STATEMENT FOR PART B

Is your site engaged in iron or steel manufacturing, forming, or finishing, or coke manufacturing?

G Yes (Complete Part B: Financial and Economic Information of the survey; sign Certification #1 below when Part B has been completed)

G No (Sign Certification #2 below and return the following to EPA at the given address: pages iii and iv and the cover page of Part B containing the site address label)

When Part B of the survey has been completed or "No" has been checked above, the individual responsible for directing or supervising the preparation of this part must read and sign the appropriate Certification Statement listed below. The certifying official must be a responsible corporate official or his/her authorized representative.

Certification Statement #1

I certify under penalty of law that Part B: Financial and Economic Information of the enclosed survey response was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. The information submitted is, to the best of my knowledge and belief, accurate and complete. In those cases where we did not possess the requested information, we provided best financial estimates in response to the questions. We have to the best of our ability indicated what we believe to be company confidential business information as defined under 40 CFR Part 2, Subpart B. We understand that we may be required at a later time to justify our claim in detail with respect to each item claimed confidential. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment as explained in Section 308 of the Clean Water Act.

Signature of Certifying Official

Date

Printed Name of Certifying Official

( ) Telephone Number

Title of Certifying Official

Certification Statement #2

I certify under penalty of law that this site does not engage in iron or steel manufacturing, forming, or finishing, or coke manufacturing. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment as explained in Section 308 of the Clean Water Act.

If you are certifying that your site is not engaged in iron or steel forming or finishing, indicate the classification of your site.

G Warehouse
G Office
G Distribution
G Other (specify): _____

Signature of Certifying Official

Date

Printed Name of Certifying Official

( ) Telephone Number

Title of Certifying Official

GENERAL INSTRUCTIONS

Complete this survey for your entire site. A site is one contiguous physical location at which manufacturing operations related to the iron and steel industry occur. These operations include, but are not limited to, cokemaking, ironmaking, steelmaking, rolling, and finishing. In some instances, a site may include property located within separate fence lines, but located close to each other. Each site in the United States iron and steel industry should have received a copy of this survey to complete. If this company has a United States iron and steel industry site that did not receive this survey, contact the Financial and Economic Information Helpline by telephone at (888) 308-9455, or by e-mail at *steel_partb@erg.com*.

Read all question-specific instructions and definitions. Carefully read the definitions provided, starting on page vi. The definitions are provided to assist you in completing the survey, and are consistent with EPA definitions in 40 CFR Part 420.

Mark responses for each question. Fill in the appropriate response(s) to each question. Please use **black ink** or **type** in the spaces provided. If the space allowed for the answer to any question is inadequate for your complete response, continue the response in the Comments area at the end of each section of the survey, cross-referencing the appropriate question number. If additional attachments are required to clarify a response, place the associated question number and your site ID number (shown on the cover page of Part B) in the top right corner of each page of the attachments.

Answer all questions unless instructed otherwise. The purpose of this survey is to gather all available information pertinent to coke, iron, and steel operations. Answer the questions in sequence unless you are directed to SKIP. Report only whole numbers, unless instructed otherwise. If a question is not applicable to your site, write "NA". As noted throughout the survey, you are requested to provide best financial estimates when data are not readily available. If you provide an estimate, note the methods that were used to make the estimates on the Comments page at the end of Section 1. EPA does not intend for sites to conduct detailed studies to obtain the data. If you feel you need to conduct a detailed study, please call the Financial and Economic Information Helpline at (888) 308-9455 or e-mail your questions to *steel_partb@erg.com*.

Some pages in this survey will likely need to be photocopied before you respond. Indicate how many copies of the page you are submitting by completing the entry "Copy ___ of ___" in the top right corner.

Pay close attention to the measurement units requested in each question. Report answers in the units that are specified.

Enter zero (0) where appropriate. Leave entry blank only if instructed to do so (e.g., if the answer is zero, enter a zero (0)).

Indicate information that should be treated as confidential. Please follow the instructions given in the "Provisions Regarding Data Confidentiality" section on page ii. If information for a given question is considered confidential business information, indicate this by checking the box next to each question as desired or by checking the "All Eligible Data are CBI" box on page iii. If the "All Eligible Data are CBI" box is not checked, any question response where the corresponding "CBI" box is not checked will be considered nonconfidential.

Include financial statements. With your completed survey include financial statements (i.e., balance sheet, income statement, and accompanying notes) for 1997 for the company. The statements need not be audited, but should conform to generally accepted accounting principles (GAAP). You may submit annual reports if they contain the relevant information.

Sign and return to EPA the Certification Statement for Part B (page iii). Include the Certification Statement with the completed survey.

Questions. If you have any questions about Part B, please telephone the Financial and Economic Information Helpline, operated by Eastern Research Group, Inc. (ERG), EPA's economics contractor, at (888) 308-9455, or e-mail the Financial and Economic Information Helpline at *steel_partb@erg.com*. The helpline is staffed Monday through Friday from 9:00 AM until 5:00 PM, Eastern Standard Time.

Retain a copy of the completed survey for your records. EPA will review the information submitted and may request, if necessary, your cooperation in answering follow-up clarification questions to complete the data collection effort. Retain a copy of the completed survey, including attachments, in case you (i.e., the contact identified in Question 2) are contacted to clarify your responses. Also, please maintain a record of sources used to complete the questions.

DEFINITIONS

Coke. The carbon product resulting from high temperature distillation of metallurgical coals in by-product or non-recovery coke ovens.

Company. The proprietorship, partnership, corporation, or other legal entity that directly owns this site. A company is distinguished by being able to provide complete financial statements through net income, and may own more than one site. If the site has no other ownership and has complete financial statements, the site and the company are the same.

Discount Rate. The rate your site would pay to raise money for capital investments, given the site's mix of debt and equity. The discount rate is also known as the *marginal weighted average cost of capital*.

Effluent Limitations Guidelines and Standards. Regulations promulgated by U.S. EPA under authority of Sections 301, 304, 306, and 307 of the Clean Water Act that set out minimum, national technology-based standards of performance for point source wastewater discharges from specific industrial categories (e.g., iron and steel manufacturing plants). Effluent limitations guidelines and standards regulations are implemented through the NPDES permit and national pretreatment programs and include the following:

- Best Practicable Control Technology Currently Available (BPT)
- Best Available Technology Economically Achievable (BAT)
- Best Conventional Pollutant Control Technology (BCT)
- New Source Performance Standards (NSPS)
- Pretreatment Standards for Existing Sources (PSES)
- Pretreatment Standard for New Sources (PSNS)

The pretreatment standards (PSES, PSNS) are applicable to industrial facilities with process wastewater discharges to publicly-owned treatment works (POTWs). The effluent limitations guidelines and new source performance standards (BPT, BAT, BCT, and NSPS) are applicable to industrial facilities with direct discharges of process wastewaters to waters of the United States.

Facility. See **Site**.

Financial Statements. Balance sheet and income statement that were derived from accounting records according to generally accepted accounting principles (GAAP).

Forging. A forming operation in which a metal piece is shaped by hammering.

Forming. Operations in which the shape of a metal piece is changed by plastic deformation. Examples include forging, rolling, extrusion, and drawing.

Short Ton. 2,000 pounds.

Site. A site is generally one contiguous physical location at which manufacturing operations related to the iron and steel industry occur. This includes, but is not limited to, cokemaking, ironmaking, steelmaking, rolling, and finishing. In some instances, a site may include property located within separate fence lines, but located close to each other. A site may also be known as a facility.

Standard Industrial Classification (SIC). The four-digit industry classification assigned to this site by the federal government. The SIC number is used when reporting financial and other information to the U.S. Department of Commerce and other federal agencies. Sites are assigned both primary and secondary SICs.

Steel. A hard, tough metal composed of iron alloyed with carbon and other elements to enhance hardness and resistance to rusting.

Value of Shipments. This item covers the received or receivable net selling values, f.o.b. plant (exclusive of freight and taxes), of all products shipped, both primary and secondary, as well as all miscellaneous receipts, such as receipts for contract work performed for others, installation and repair, sales of scrap, and sales of products bought and resold without further processing. Included are all items made by or for the establishments from materials owned by it, whether sold, transferred to other plants of the same company, or shipped on consignment.

SECTION 1

SITE IDENTIFICATION AND FINANCIAL INFORMATION

1. What is the street address of the site (physical location, not mailing address)?

Name of site _____

Street address or P.O. box _____

City _____ County _____

State _____ Zip Code _____

G CBI **2.** Provide the name, title, and telephone number of the individual who can answer questions concerning information provided in this survey.

a. Contact name _____

b. Contact title _____

c. Telephone number ( ) _____

d. When is the most convenient day and time to call?

(Circle best days) Mon. Tues. Wed. Thurs. Fri. Any day

_____ AM/PM (local time)

3. What is the name and address of the company that owns this site?

Name of company _____

Mailing address or P.O. box _____

City _____ State _____ Zip _____

G CBI 4. Please check the corporation type that best describes this company:

a. Corporation (C Corporation) . . . . . **G**

b. Subchapter S corporation . . . . . **G**

c. Limited partnership . . . . . **G**

d. General partnership . . . . . **G**

e. Sole proprietor . . . . . **G**

f. Other (please describe) . . . . . **G**

G CBI 5. Is the company listed in question 4?

a. Publicly held . . . . . **G**

b. Privately held . . . . . **G**

G CBI 6. List the primary Standard Industrial Classification (SIC) code assigned to this company . . . . . ___ ___ ___ ___

G CBI 7. For fiscal year 1997, list the average number of full-time equivalent (FTE) employees at the site and company (i.e., 2,080 hrs./yr.). For example, four half-time employees would be listed as two full-time equivalent employees.

a. Number of FTE employees at the site . . . . . ___ , ___ ___ ___

b. Number of FTE employees at the company . . . . . ___ ___ , ___ ___ ___

DISCOUNT RATE

G CBI 8. If the company borrows money to finance capital improvements, such as wastewater treatment equipment, what interest rate would it pay on such loans?

Interest rate . . . . . __ __ __.__%

G CBI 9. In the event the company does not borrow money to finance capital improvements, what discount rate would it use? The discount rate is the minimum rate of return on capital required to compensate debt holders and equity owners for bearing risk. If the company borrows to finance capital improvements, the discount rate is equivalent to the interest rate paid on those loans.

Discount rate . . . . . __ __ __.__%

G CBI 10. When you finance capital improvements, what is the approximate mix of debt and equity?

a. Debt (Question 8) . . . . . __ __ __.__%

b. Equity (Question 9) . . . . . __ __ __.__%

G CBI

11. Iron and steel sites operated by the company (site is defined on page vi). List any additional iron and steel sites in the United States that are operated by the company. Include sites with stand-alone pipe/tube, hot dip coating, cold forming, or wire drawing operations. Do NOT include sites without iron and steel operations, such as a corporate headquarters, distribution centers, or sites with unrelated activities such as iron and steel casting, iron and steel forging, nonferrous metal forming, metal fabrication such as gutters, roofing, etc. Provide the name and address of the site, and indicate whether the site was constructed ("C") or acquired ("A") by the company. Use the first line to describe the site in this survey. If additional spaces are required, photocopy these pages BEFORE writing on them and label each copy in the space provided at the top right corner of the page.

Site Name	City	State	ZIP	Constructed or Acquired	
				"C"	"A"

G CBI

12. Income statement information (1995). For fiscal year 1995, complete the following income statement information. If the site is the company, complete both columns with the same entries. If certain items are not held on the site's books, enter zero for the item under the site column. **Report amounts in dollars; round to the nearest thousand.**

	Site	Company
REVENUES		
a. Net sales from iron and steel products	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
b. Other income (such as equity earnings and interest)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
c. Total revenues (sum of a and b)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
COSTS AND EXPENSES		
d. Cost of goods sold (purchases and operating expenses; do not include depreciation and amortization)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
e. Depreciation and amortization	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
f. Selling, general, and administrative expenses	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
g. Total costs and expenses (sum of d through f)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
h. EARNINGS BEFORE INTEREST AND TAXES (EBIT) (subtract g from c)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
i. INTEREST EXPENSE	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
j. TAXES	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
k. NET INCOME (subtract i and j from h)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0

G CBI

13. Income statement information (1996). For fiscal year 1996, complete the following income statement information. If the site is the company, complete both columns with the same entries. If certain items are not held on the site's books, enter zero for the item under the site column. **Report amounts in dollars; round to the nearest thousand.**

	Site	Company
REVENUES		
a. Net sales from iron and steel products	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
b. Other income (such as equity earnings and interest)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
c. Total revenues (sum of a and b)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
COSTS AND EXPENSES		
d. Cost of goods sold (purchases and operating expenses; do not include depreciation and amortization)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
e. Depreciation and amortization	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
f. Selling, general, and administrative expenses	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
g. Total costs and expenses (sum of d through f)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
h. EARNINGS BEFORE INTEREST AND TAXES (EBIT) (subtract g from c)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
i. INTEREST EXPENSE	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
j. TAXES	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
k. NET INCOME (subtract i and j from h)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0

G CBI

14. Income statement information (1997). For fiscal year 1997, complete the following income statement information. If the site is the company, complete both columns with the same entries. If certain items are not held on the site's books, enter zero for the item under the site column. **Report amounts in dollars; round to the nearest thousand.**

	Site	Company
REVENUES		
a. Net sales from iron and steel products	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
b. Other income (such as equity earnings and interest)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
c. Total revenues (sum of a and b)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
COSTS AND EXPENSES		
d. Cost of goods sold (purchases and operating expenses; do not include depreciation and amortization)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
e. Depreciation and amortization	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
f. Selling, general, and administrative expenses	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
g. Total costs and expenses (sum of d through f)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
h. EARNINGS BEFORE INTEREST AND TAXES (EBIT) (subtract g from c)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
i. INTEREST EXPENSE	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
j. TAXES	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
k. NET INCOME (subtract i and j from h)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0

G CBI

15. Balance sheet information (1997). For fiscal year 1997, complete the following balance sheet information. If the site is the company, complete both columns with the same entries. If certain items are not held on the site's books, enter zero for the item under the site column. **Report amounts in dollars; round to the nearest thousand.**

	Site	Company
ASSETS		
a. Current assets, excluding inventories	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
b. Inventories	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
c. Land (original cost)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
d. Buildings (original cost)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
e. Equipment (original cost)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
f. Other noncurrent assets (original cost)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
g. Cumulative depreciation	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
h. Total assets (sum of a through f minus g)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
LIABILITIES AND EQUITY		
i. Current liabilities (including accounts payable, accrued expenses and taxes, and the current portion of long-term debt)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
j. Long-term debt (including bonds, debentures, long-term leases, bank debt, and all other noncurrent liabilities such as deferred income taxes)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
k. Retained earnings	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
l. Owner equity (other than retained earnings)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0
m. Total liabilities and equity (sum of i through l)	$__ __ __,__ __ __,0 0 0	$__ __ __,__ __ __,0 0 0

G CBI

16. What was the total value of iron and steel shipments from the site? Fill in the code for each applicable category. These product categories are listed in Appendix A with their associated codes. These codes must be used below to identify the product categories. If additional product category spaces are required, photocopy these pages BEFORE writing on them and label each copy in the space provided at the top right corner of the page. **Report amounts in dollars; round to the nearest thousand.**

Product category	**1995 ($)** **Not in Operation...........G** **(Leave column blank)**	**1996 ($)** **Not in Operation...........G** **(Leave column blank)**	**1997 ($)** **Not in Operation...........G** **(Leave column blank)**
___ ___	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0
___ ___	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0
___ ___	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0
___ ___	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0
___ ___	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0
___ ___	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0
___ ___	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0
___ ___	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0
___ ___	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0
___ ___	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0
Total (Should equal Question 12a, 13a, and 14a)	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0	$_ _ _,_ _ _,0 0 0

Check box if data are best estimates . . . . G

G CBI **17.** Do the values given in Question 16 include shipping costs?

Yes . . . . G

No . . . . G

G CBI

18. What were the total quantities of iron and steel shipments from the site? Fill in the code for each applicable category. These product categories are listed in Appendix A with their associated codes. These codes must be used below to identify the product categories. If additional product category spaces are required, photocopy these pages BEFORE writing on them and label each copy in the space provided at the top right corner of the page. **Report amounts in short tons.**

Product category	1995 Not in Operation............G (Leave column blank)	1996 Not in Operation............G (Leave column blank)	1997 Not in Operation............G (Leave column blank)
___ ___	___,___,___	___,___,___	___,___,___
___ ___	___,___,___	___,___,___	___,___,___
___ ___	___,___,___	___,___,___	___,___,___
___ ___	___,___,___	___,___,___	___,___,___
___ ___	___,___,___	___,___,___	___,___,___
___ ___	___,___,___	___,___,___	___,___,___
___ ___	___,___,___	___,___,___	___,___,___
___ ___	___,___,___	___,___,___	___,___,___
___ ___	___,___,___	___,___,___	___,___,___
___ ___	___,___,___	___,___,___	___,___,___
Total	___,___,___	___,___,___	___,___,___

Check box if data are best estimates .... G

19. Include a copy of the company's end-of-year financial statements for 1997 with the completed questionnaire. These may be accountant reports, annual reports, and/or 10-K forms, and **MUST** include both an income statement and balance sheets for the company. These statements need not be audited, but should conform to generally accepted accounting principles (GAAP). In all cases, **INCLUDE THE NOTES TO THE FINANCIAL STATEMENTS**. You may claim the information as confidential by marking the document(s) with the word "Confidential."

SECTION 1 COMMENTS

Question Number	Check If Confidential	Comment

APPENDIX A

PRODUCT CATEGORIES AND CODES

The product category codes to be used in the survey are given in the first numerical column. The survey categories follow categories established by the U.S. Department of Commerce, Bureau of the Census, for its Annual Survey of Manufactures and Current Industrial Reports survey. For reference purposes, the Bureau of Census codes are given in the two right-hand columns.

Product Category	EPA Survey Code	Bureau of the Census	
		Annual Survey of Manufactures	Current Industrial Reports
		Form MA-1000 Code	**Form MA33B Code**
COKE	10		3312113, 3312115
COKE BY-PRODUCTS			
Coke breeze and screenings	20		3312114, 3312116
Coke oven gas	21		
Crude coal tar	22		3312152, 3312153
Crude light oil	23		3312172, 3312173
Ammonia products	24		
Other by-products (includes tar derivatives and light oil derivations)	25		
CARBON STEEL			
Ingots, bloom, billets, sheet bars, tin mill bars, tube rounds, skelp, slabs	30	1110, 1210, 1245	3312211, 3312213, 3312220
Wire rods	31	1230	3312219
Structural shapes (wide flange and standard heavy shapes), sheet piling and bearing piles	32	1506, 1508, 1512	3312415, 3312417, 3312418
Plate (cut lengths and coils)	33	1313, 1314	3312413, 3312414
Rails, wheels, and track accessories	34	1571, 1586, 1591, 1601, 1606, 1611, 1616	3312C–
Bars (hot rolled, except concrete reinforcing, and light structurals under 3 inches)	35	1516, 1521	3312422, 3312424
Bars (concrete reinforcing)	36	1546	3312426
Bars (cold rolled)	37	1551	3316811

Product Category	EPA Survey Code	Bureau of the Census	
		Annual Survey of Manufactures	Current Industrial Reports
		Form MA-1000 Code	**Form MA33B Code**
Pipe (structural and miscellaneous, including standard pipe)	38	1691, 1696	3317027, 3317029
Pipe (oil country goods)	39	1646	3317019
Pipe (line)	40	1636, 1641	3317014, 3317015
Pipe (mechanical and pressure)	41	1651, 1666, 1671, 1686	3317021 through 3317024
Wire	42	1741 through 1746, 1763, 1764, 1766, 1767, 1768, 1771, 1773, 1777, 1779, 1781, 1783, 1784, 1786, 1889	3315501 through 3315506, 3315513 through 3315515, 3315517, 3315518, 3315521. 3315221, 3315951, 3315621, 3315955, 3315113, 3315133, 3315135, 3315771
Tin mill products	43	1420, 1430, 1445, 1450	3312324, 3312326, 3312328, 3312329
Sheet and strip (hot rolled)	44	1323	3312311, 3312319
Sheet and strip (cold rolled)	45	1324	3316711, 3316715
Sheet and strip (galvanized-hot dipped)	46	1355	3312313
Sheet and strip (galvanized-electrolytic)	47	1360	3312315
Sheet and strip (all other metallic coated, including long ternes)	48	1385	3312318
Sheet and strip (electrical)	49	1370	3312317

Product Category	EPA Survey Code	Bureau of the Census	
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		Form MA-1000 Code	**Form MA33B Code**
ALLOY STEEL			
Ingot, blooms, billets, sheet bars, tin mill bars, tube rounds, skelp, slabs	50	2110, 2237, 2241	3312231, 3312237, 3312241
Wire rods	51	2239	3312239
Plates (cut length and coils) and structural shapes (3 inches and under)	52	2314, 2316, 2318	3312433, 3312436, 3312438
Bars (hot rolled)	53	2520	3312441
Bars (cold finished)	54	2525	3316831
Tool steel	55	2530, 2535	3312448, 3312449
Pipe (miscellaneous, including standard and structural)	56	2649	3317048
Pipe (oil country goods)	57	2641	3317032
Pipe (mechanical and pressure)	58	2643, 2646	3317043, 3317045
Wire	59	2707	3315537
Sheet and strip (hot rolled)	60	2321, 2391	3312331, 3312339
Sheet and strip (cold rolled and finished)	61	2327, 2393	3316731, 3316735
Sheet and strip (galvanized, hot dipped)	62	2333	3312335
Sheet and strip (all other metallic coated, including electrolytic)	63	2375	3312337

Product Category	EPA Survey Code	Bureau of the Census	
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		Form MA-1000 Code	**Form MA33B Code**
STAINLESS STEEL			
Ingots, blooms, billets, sheet bars, tin mill bars, tube rounds, skelp, slabs	70	3110, 3220	3312251, 3312256
Wire rods	71	3225	3312259
Plates and structurals	72	3320	3312453
Bars (hot rolled)	73	3525	3312461
Bars (cold rolled)	74	3550	3316851
Pipe (mechanical, pressure, and other)	75	3610, 3620, 3630, 3640, 3660	3317061 through 3317065
Wire (round and other shape)	76	3710, 3720, 3730, 3750	3315552, 3315553, 3315554, 3315557
Sheet and strip (hot rolled)	77	3335	3312357
Sheet and strip (cold rolled)	78	3339	3316757