TABLE OF CONTENTS
for
Iron & Steel Scrap Manual
Specifications, Terms & Conditions

INTRODUCTION

Steel Dynamics, Inc. – Long Products Group, Structural & Rail Division wishes to consistently provide the highest quality ferrous scrap commodities & alternative iron units to our melt shop through global sourcing and procurement. You, our valued suppliers, play an integral role in our success. To pay competitive prices for raw materials and meet the quality demands of a finished product from our customers, it is imperative that the quality of the raw materials purchased is of a high standard and delivered in a timely manner to our mill. Scrap commodities that do not meet our expectations as are outlined within this document are unfavorable to be used in a high-quality finished product.

The purpose of this *Iron & Steel Scrap Manual* is to formally outline our melt shop's specific expectations regarding what we deem to be acceptable scrap quality and onsite practices. Your efforts in applying these standards will help ensure a long, continuing relationship with supplying raw materials to our mill. Please be assured that our personnel involved in the purchasing, receiving, grading, and unloading of raw materials are trained in their respective areas and are taught to be fair and consistent in their practices.

The standards used in this manual are derived from the Institute of Scrap Recycling Industries' (ISRI) specifications and have been modified to meet the needs of our melt shop.

Thank you for choosing to partner with us and if you have any questions regarding the *Iron & Steel Scrap Manual*, please feel free to contact us for further clarification. Thank you.

Steel Dynamics, Inc.
Structural & Rail Division
2601 County Rd 700
Columbia City, IN 46725

(260) 625-8100

GENERAL TERMS & CONDITIONS

- **Purchasing** of iron & steel scrap is handled by the purchasing agent and can be contacted at (260) 625-8100.
- **Prices** are quoted for each commodity primarily at the beginning of each month. SDI reserves the right to cancel all unfulfilled contracts on the last day of the calendar month at 5:00 PM EST. A purchase contract with a corresponding purchase order number will be issued for specific grades and quantities to be delivered within a specified period. Balances remaining on any purchase order not shipped by the specified completion date may be cancelled or extended at the discretion of the Scrap Procurement Team. All prices are quoted in gross tons and all quantities expressed on the purchase order are in gross tons.
- **Delivery** may be in truckload or rail at agreed upon minimum weights as specified at the time of purchase.
- **Scale Hours** are 24 hours a day, 7 days a week; the scale house is closed on December 24th and December 25th each year. Shipments will not be received from midnight through 9:00 AM EST on the 1st day of every month.
- SDI reserves the right to modify or update the specifications, terms and conditions outlined in the *Iron & Steel Scrap Manual* as required.

Trucks – Shipping Guidelines
Shipping Terms: Typically prepaid unless otherwise stated in the purchase order. Shipments arriving at the mill without shipping notices may be assessed a $500 fee. A rejected load, partial rejection, reload of a truck, or truck tip over may be assessed a $500 fee. *If fees are not paid, they will be directly deducted from payment. Refer to Appendix A & B for additional information regarding PPE, towing, and truck safety guidelines.
Shipment Period: Material must be shipped by 5:00 PM EST on the last day of the calendar month stated on the contract. SDI reserves the right at its own discretion to review the status of the contract on the last calendar day of the month in which the scrap was purchased, at which time the contract may be cancelled or continued until the contractual obligation has ended.
Payment Terms: Scrap received on the 1st through the 15th of the month shall be paid by the 10th of the following month. Scrap received on the 16th through the end of the month shall be paid by the 25th of the following month.
Truck Equipment Requirements: All scrap must be received in a trailer with a side-hinged rear door. Framed trailers are acceptable for all commodities. Frameless trailers are permissible for shredded, busheling, and pig iron commodity loads only. All truck drivers must be able to operate controls to raise and lower trailers from inside the cab. Truck drivers must have an operational CB radio while onsite. The seller agrees that it shall be solely liable for any and all damages, including any clean up and/or mill down time resulting from seller's utilization of any frameless trailers for delivery of the product covered by this purchase order. The seller shall be responsible for any costs, attorney fees or any consequential damages incurred by SDI for recovery of the items due or owed by seller under this paragraph.
Freight Terms: Prepaid unless stated otherwise in the purchase order. • SDI weight tickets are the governing weight for invoices.

Rail – Shipping Guidelines

Shipping Terms: Typically prepaid unless otherwise stated in the purchase order. Shipments arriving at the mill without shipping notices may be assessed a $500 fee. A rejected load, partial rejection, or reload of a railcar may be assessed a $1,000 fee.

*If fees are not paid, they will be directly deducted from payment.

Failure to notice rejected loads within 24 hours of rejection notice may result in demurrage fees that will be back charged to the shipper.

Shipment Period: Material must be shipped by 5:00 PM EST on the last day of the calendar month stated on the contract. SDI reserves the right at its own discretion to review the status of the contract, at which time the contract may be cancelled or continued until the contractual obligation has ended.

Payment Terms: Scrap received on the 1st through the 15th of the month shall be paid by the 10th of the following month. Scrap received on the 16th through the end of the month shall be paid by the 25th of the following month.

Rail Equipment Requirements: All railcars must be fully open top railcars with vertical sidewalls and end walls with horizontal flat bottoms. Unacceptable railcars include v-troughs, belly troughs, or any interior ribs/framing. Scrap may be received in 65-foot length mill gondola cars. Coil gondolas are not accepted.

Freight Terms: Prepaid unless stated otherwise in the purchase order.

- Consignee: Steel Dynamics, Inc. – Structural & Rail Division
- Rail Station: Columbia City, IN
- Final Rail Carrier: NS or CFE
- Max Car Limit: 286,000 lbs.
- Min Car Limit: Not applicable unless SDI is covering the freight, then the minimum weight will be listed.
- SDI weight tickets are the governing weight for invoices.

Delivery Terms: Shipments will only be received at the Columbia City mill against purchase orders where the supplier enters shipping notices via the Steel Dynamics, Inc. – Structural & Rail Division website, http://webcres.steeldynamics.com/. If you are not a registered user and need to know how to sign up for a new account, visit the website for detailed instructions and videos.

CONTRACTOR & VISITOR SAFETY GUIDELINES

- Personal protective equipment (PPE) must be worn onsite. Required equipment includes hard hat, safety glasses or goggles over prescription glasses, shirt, long pants, closed-toe shoes preferably steel-toe boots or metatarsals, and a hi-vis vest.
- Follow all state road laws, speed limits and other traffic controls, such as stop signs and railroad crossings and adhere to safe approach and passage distances. Come to a complete stop if your view is obstructed by steam or fog.
- Dangerous areas have signage and signals to warn of potential site hazards. Remotely activated signs will notify and warn site travelers not to enter designated areas when lights are flashing.
- Remain aware of audio warning devices – trains, auto, mobile equipment backup alarms, overhead cranes, plant start-up etc.
- Heavy equipment always has the right of way. Stay at least 40 feet back from all equipment. Continually check your surroundings and never position yourself in the blind spots or swing radius of mobile equipment (material handler, pot hauler, etc.). Do not move near equipment that has not acknowledged your presence. Stay out of tipping radius of any trailer that raises its bed to dump.
- Do not park on or near a railroad track. Maintain a clearance of 8 feet from the centerline of the railroad tracks at all times.
- Scrap pad truck deliveries must occur within the specified zones outlined in Appendix A. Improper deliveries on the scrap pad could result in the truck driver being permanently banned from our site.

QUALITY INSPECTION POLICY

SDI understands that iron and steel by their nature are unique commodities and will work with all our suppliers to ensure our specifications and practices are fair and equitable. To complement our *Iron & Steel Scrap Manual*, SDI has implemented the following:

- A strict inspection procedure. Every truck or railcar which enters our facility will be inspected at our scales, pass through radiation detection, and be inspected by trained inspectors when dumped or unloaded. No raw materials will be received without a purchase order.
- Any loads failing to meet our standards, as outlined within this manual, will be rejected. If the load is acceptable scrap, but does not match the intended purchased grade, it will be at the discretion of SDI whether to accept the load as a downgrade or to reject the load. The decision will be made, and all personnel will be notified prior to the vehicle leaving site. If the load is downgraded, then the supplier must determine whether to have the load returned or accept the downgraded price. Ongoing rejections and downgrades are costly and inefficient for both the suppliers and SDI.
- OmniSource must notify SRD prior to shipping a downgraded or rejected load from another mill to SRD. This will give SRD the opportunity to evaluate the non-conformance and determine whether it fits our specifications.

General Requirements

Commodity: ALL / Grade: ALL

Special Definitions:

- **Downgrade:** When a particular grade of scrap is found to not conform to its represented grade, it may, by agreement between SDI and the supplier, be downgraded and accepted as a lower quality grade of scrap.
- **Free of:** When specified to be "free of", the grade shall not contain any amount of prohibited material in any amount greater than that which is unavoidable in the customary preparation and handling of that grade.
- **Free of alloys:** Shall mean that any alloys contained in the steel are residual and have not been added for the purpose of making an alloy steel. Steel scrap shall be considered free of alloys when the following alloying elements do not exceed:
  - 1.65% Manganese (Mn)
  - 0.20% Chromium (Cr)
  - 0.45% Nickel (Ni)
  - 0.10% Molybdenum (Mo)
- **Commodity** or **Grade:** A classification of scrap type based upon Institute of Scrap Recycling Industries (ISRI) ferrous scrap classification or SDI / vendor description.
- **Off-grade:** A load of scrap shall be considered off-grade if it fails to meet:
  - Applicable size & density limitations
  - Applicable requirements of material "kind" by visual inspection
  - Applicable requirements of material quality & chemistry

  as specified for each scrap commodity.
- **NORM:** Naturally occurring radioactive material emitting less than 2X background radiation level.

General Specifications:

- **Cleanliness:** All grades shall be free of dirt, mill scale, swarf, nonferrous metals, excessive rust, oil, fines, grease, and nonmetallic materials such as wood, concrete, fluff, and plastics. Any charges billed to SDI for dunnage left in a railcar may be passed on to the shipper.
- **Inspection:** All material is to be suitable and acceptable to SDI.
- **Loading/Unloading:** All grades must be capable of being loaded and unloaded by electromagnet.

  The seller's indemnification includes indemnification for delivery under this purchase order by means of any frameless trailer. The seller agrees that it shall be solely liable for all damages, including any clean up and/or mill down time, resulting from the seller's utilization of any frameless trailers for delivery of the product covered by this purchase order. The seller shall be responsible for any costs, attorney fees or any consequential damages incurred by SDI for recovery of the items due or owed by the seller under this paragraph.
- **Alloy Steel:** All grades shall be free of alloys unless otherwise specified. This includes, but is not limited to, stainless steel, rolling mill rolls, and tool & die blocks.
- **High Silicon:** All grades shall be free of scrap exceeding 1.00% silicon or silica content unless otherwise specified. This includes, but is not limited to, cast iron, turnings, borings, electrical steel, beach iron, blast furnace iron, B-scrap, C-fines, DRI, HBI, brake shoes, and engine blocks.
- **Mill Scrap:** All grades shall be free of mill scrap. This includes, but is not limited to, pit scrap, pot skulls, tundish bars, slag, billets, blooms or any other materials generated within a melt shop.
- **Tin Plate:** All grades shall be free of tin-plated materials.
- **Off-grade:** All grades shall be free of off-grade materials except where the vendor can demonstrate that inclusion of negligible amounts of off-grade materials are unavoidable during the preparation and handling of the grade involved.

General Requirements (cont.):

Commodity: ALL / Grade: ALL

- **Hazardous Materials:** All grades shall be free of hazardous materials including, but not limited to:
  - Asbestos containing materials such as brake shoes, insulation, and construction debris
  - Polychlorinated Biphenyls (PCBs) containing materials such as hydraulic fluids and electrical equipment
  - Refrigerant containing materials such as HVAC systems, refrigerators, freezers, and water coolers
  - Military scrap such as munitions, bullets, military target range scrap or other explosives
  - Ignition sources, flammable or combustible materials
  - Fracking scrap such as gas & oil well perforation tools, piping and explosives
  - Hazardous waste, other regulated waste, and their containers
  - Radioactive materials such as radiography sources, medical therapy devices, and beta emitting devices
  - Oil filled devices such as filters, capacitors or transformers
  - Batteries of any type
  - Electronic waste
  - Mercury containing materials such as relays, switch gears, rectifiers, gauges, manometers, barometers, thermometers, and fluorescent lighting fixtures
  - Nonmetallic materials such as wood, paper, fibers, rubbers, foam, fluff, insulation, concrete, dirt, plastic, oils, greases, tires or tire pieces of any type
  - Nonferrous materials such as electric motors, piping, compressors, wires, brass/bronze castings, copper plated bundles, tin plated materials, chrome plate materials, lead, titanium, and aluminum
  - Materials that can contain potential energy such as streamers, strapping, banding, cables, chains, and springs
  - Materials that can impale or puncture such as bolts, nails, loose rebar straights, rods, and small diameter pipe
  - All liquids including water and ice
  - Bundles, bales, coils, mandrels, blocks, or briquettes unless otherwise specified
- **Prohibited Contaminants:** All grades shall be free of prohibited contaminants including, but not limited to:
  - Materials that contain free organic liquids such as oil filters, engine blocks, oily turnings, oily machine shop borings, storage drums and totes
  - Materials that contain chlorinated plastics such as carpeting, clothing, foam, furniture, Styrofoam, bags, bottles, food packaging, packaging materials, battery casings, bumpers, and other plastic parts
  - Lead containing materials such as paints, batteries, gasoline tanks, mufflers, tail pipes, counterweights, wheel balancing weights, babbit, solder, radiators, leaded joints in soil pipe, and terne material
  - Motor vehicle shredded scrap commodity providers must participate in the National Motor Vehicle Switch Removal Program (NMVSRP) or another U.S. EPA-approved mercury switch removal program
- **Radioactive Material:** All inbound scrap by truck and railcar is scanned by radiation detection equipment. Scrap shipments found containing radiation sources or NORM that triggers a radiation alarm will be immediately rejected. Under no circumstances shall any radioactive scrap be subject to acceptance through downgrade.
- **Sealed Containers:** All grades shall not contain closed, enclosed, or sealed containers. Such containers present a serious explosion hazard if melted, which may result in the loss of life, limb, and/or property damage. Any scrap shipment arriving that is found to contain a closed container will be rejected, and if any vendor fails to address the issue it will result in suspension or termination as an approved scrap supplier to SDI Columbia City. Containers may only be accepted if they are processed such that one end has been removed or the container has been cut in half.

  Closed, enclosed, or sealed containers include, but are not limited to, hydraulic or gas cylinders, compressed gas cylinders or tanks, oxygen or propane tanks, fire extinguishers, aerosol cans that have not been properly vented or depressurized, or any vessels which contains or retains gases, oils, fluids or pressurized substances, sheared pipe that is pinched or not open on both ends, auto/truck drive shafts, shock absorbers, struts, torque converters, gear boxes, conveyor rollers, and closed ball valves.
- **Deviations:** Deviations from the general classifications of iron or steel scrap commodities given herein may be allowed by mutual written agreement between SDI and the supplier.

Pig Iron

SDI Part #: 1400-009-001

ISRI #: n/a

Sizing Dimensions:	12" L x 6" W x 5" H maximum
Thickness:	n/a
Minimum Density:	180 lb/ft^3
Typical Density:	200 - 220 lb/ft^3

Description / Typical Constituents

Iron ore that has been reduced to liquid iron in a blast furnace and cast into a pig mold. The casting is then broken into smaller pieces, ingots or pyramids. Residual chemistry content is extremely low.

Chemistry specifications are defined mutually for each lot purchase or contract. A certificate of analysis (COA) must be provided for each barge or shipment.

Prohibitions

Fines content shall not exceed 1% by weight of the delivered load.

May not contain beach iron, DRI, HBI, kish graphite, mill scrap, broken castings (other than broken pigs), slag or cast iron.

Acceptance Criteria: Material is subject to visual inspection and visual classification, inspection for prohibited items and over/undersized material, chemistry and density checks, mechanical weighing on certified scales, and radiation detection. All conditions apply as are detailed in the *General Requirements* section of the *Iron & Steel Scrap Manual*.

Chemistry	Fe	C	Mn	Si	P	S	Cu	Cr	Ni	Mo	Sn
Minimum wt %	93.0	--	--	--	--	--	--	--	--	--	--
Maximum wt %	--	5.00	0.50	0.70	0.080	0.050	0.01	0.01	0.01	0.010	0.010

#1 Busheling

SDI Part #: 1400-004-001

ISRI #: 207, 207A

Sizing Dimensions:	60" L x 24" W maximum
Thickness:	1/8" maximum
Minimum Density:	58 lb/ft^3
Typical Density:	65 - 80 lb/ft^3

Description / Typical Constituents

Clean steel scrap that is generated from cutting and forming processes during factory production. Materials can include sheet steel, clippings, slitter scrap, stampings, punchings, or skeleton scrap.

Prohibitions

Painted and galvanized scrap shall not exceed 1% by weight of the delivered load. All other coating substances are prohibited.

May not contain pipe, tubing, vitreous enameled materials, electrical steel, nails, wire, nuts, bolts, screws, tin cans, alloy steel, stainless steel, mandrel coils, slitter coils, entangled material, oversized skeleton plates, streamers, strapping, banding, cables, chains, old auto body and fender stock, terne plate, tin plate or chemically de-tinned material, bundles, rebar or material that has been copper plated.

Acceptance Criteria: Material is subject to visual inspection and visual classification, inspection for prohibited items and over/undersized material, chemistry and density checks, mechanical weighing on certified scales, and radiation detection. All conditions apply as are detailed in the *General Requirements* section of the *Iron & Steel Scrap Manual*.

Chemistry	Fe	C	Mn	Si	P	S	Cu	Cr	Ni	Mo	Sn
Minimum wt %	97.0	--	--	--	--	--	--	--	--	--	--
Maximum wt %	--	0.30	1.00	0.40	0.030	0.040	0.10	0.10	0.10	0.030	0.010

#1 Shredded

SDI Part #: 1400-012-001

ISRI #: 211, 212

Sizing Dimensions:	10" L x 10" W x 10" H maximum
Thickness:	3/8" maximum
Minimum Density:	58 lb/ft^3
Typical Density:	65 - 75 lb/ft^3

Description / Typical Constituents

Steel scrap that has been shredded and magnetically separated to homogenize the size. Shredded materials can include automobiles, appliances, heavy melting steel, and miscellaneous sheet steel. All apparent non-metallics and copper should be manually removed. Additional processing is performed to reduce the copper content.

Prohibitions

Non-ferrous and non-metallic materials shall not exceed 1% by weight of the delivered load.

Motor vehicle shredded scrap commodity providers must participate in the National Motor Vehicle Switch Removal Program (NMVSRP) or another U.S. EPA-approved mercury switch removal program.

May not contain municipal scrap, incinerator scrap, lead-coated steel, vitreous enameled materials, tin cans or tin-plated materials, copper-clad or plated steel, electric motors, rebar, cast iron, turnings, borings, alloy steel, copper wire, dirt, trash, and excessive fluff.

Acceptance Criteria: Material is subject to visual inspection and visual classification, inspection for prohibited items and over/undersized material, chemistry and density checks, mechanical weighing on certified scales, and radiation detection. All conditions apply as are detailed in the *General Requirements* section of the *Iron & Steel Scrap Manual*.

Chemistry	Fe	C	Mn	Si	P	S	Cu	Cr	Ni	Mo	Sn
Minimum wt %	96.0	--	--	--	--	--	--	--	--	--	--
Maximum wt %	--	0.40	1.20	0.50	0.030	0.040	0.20	0.15	0.10	0.030	0.020

#2 Shredded

SDI Part #: 1400-003-001

ISRI #: 210, 211, 212

Sizing Dimensions:	10" L x 10" W x 10" H maximum
Thickness:	3/8" maximum
Minimum Density:	50 lb/ft^3
Typical Density:	55 - 65 lb/ft^3

Description / Typical Constituents

Steel scrap that has been shredded and magnetically separated to homogenize the size. Shredded materials can include automobiles, appliances, heavy melting steel, and miscellaneous sheet steel. All apparent non-metallics and copper should be manually removed. May contain trace amounts of copper wire.

Prohibitions

Non-ferrous and non-metallic materials shall not exceed 1% by weight of the delivered load.

Motor vehicle shredded scrap commodity providers must participate in the National Motor Vehicle Switch Removal Program (NMVSRP) or another U.S. EPA-approved mercury switch removal program.

May not contain municipal scrap, incinerator scrap, lead-coated steel, vitreous enameled materials, tin cans or tin-plated materials, copper-clad or plated steel, electric motors, rebar, cast iron, turnings, borings, alloy steel, dirt, trash, and excessive fluff.

Acceptance Criteria: Material is subject to visual inspection and visual classification, inspection for prohibited items and over/undersized material, chemistry and density checks, mechanical weighing on certified scales, and radiation detection. All conditions apply as are detailed in the *General Requirements* section of the *Iron & Steel Scrap Manual*.

Chemistry	Fe	C	Mn	Si	P	S	Cu	Cr	Ni	Mo	Sn
Minimum wt %	96.0	--	--	--	--	--	--	--	--	--	--
Maximum wt %	--	0.40	1.20	0.50	0.030	0.040	0.30	0.15	0.10	0.030	0.020

Plate & Structural

SDI Part #: 1400-010-001

ISRI #: 231, 232, 236, 237, 238

Sizing Dimensions:	60" L x 24" W x 12" H maximum
Thickness:	1/4" minimum
Minimum Density:	50 lb/ft^3
Typical Density:	55 - 65 lb/ft^3

Description / Typical Constituents

Dense, clean, and cut structural and plate steel scrap. Materials can include plate, structural shapes, crop ends, shearings, heavy wall pipe and tubing, railcar frames and bolsters, ship and barge plate, and cut/broken steel tire rims.

Prohibitions

All pipe and tube with an 8" diameter or greater must be cut in half. Sheared or pinched pipe and tube is strictly prohibited. Pipe and tube shall not exceed more than 10% by weight of the delivered load. All pipe and tube are to be free of concrete or ceramic lining.

May not contain rail wheels and bearings, tool & die blocks, cut up machinery, cam shafts, crank shafts, torque converters, cables, chains, springs, entangled material, oversized skeleton plates, gears or gear boxes, electrical panels, motor or motor blocks of any kind, counterweights, rolling mill rolls, cast iron, uncut/unbroken steel tire rims and rebar.

Acceptance Criteria: Material is subject to visual inspection and visual classification, inspection for prohibited items and over/undersized material, chemistry and density checks, mechanical weighing on certified scales, and radiation detection. All conditions apply as are detailed in the *General Requirements* section of the *Iron & Steel Scrap Manual*.

Chemistry	Fe	C	Mn	Si	P	S	Cu	Cr	Ni	Mo	Sn
Minimum wt %	96.0	--	--	--	--	--	--	--	--	--	--
Maximum wt %	--	0.40	1.20	0.50	0.030	0.040	0.20	0.15	0.15	0.030	0.015

Alloy Steel

SDI Part #: 1400-019-001

ISRI #: n/a

Sizing Dimensions:	24" L x 24" W x 24" H maximum
Thickness:	1/8" minimum
Minimum Density:	50 lb/ft^3
Typical Density:	55 - 65 lb/ft^3

Description / Typical Constituents

Alloy steel scrap produced in foundry, forging or other industrial processes. Materials can include flashings and forgings, dies and tool, mixed alloy steel, gears and pinions, armor plate, small rolls, low alloy steels, and cut bar stock.

Prohibitions

May not contain mill scale, chains, cables, banding, springs, rebar, non-ferrous metals, tin coating, stainless steel, resulfurized steels (1100 series), rephosphorized steels (1200 series), or leaded steels.

Acceptance Criteria: Material is subject to visual inspection and visual classification, inspection for prohibited items and over/undersized material, chemistry and density checks, mechanical weighing on certified scales, and radiation detection. All conditions apply as are detailed in the *General Requirements* section of the *Iron & Steel Scrap Manual*.

Chemistry	Fe	C	Mn	Si	P	S	Cu	Cr	Ni	Mo	Sn
Minimum wt %	94.0	--	--	--	--	--	--	0.30	0.10	0.10	--
Maximum wt %	--	0.40	1.20	0.50	0.030	0.040	0.25	1.00	1.00	0.30	0.025

#1 HMS

SDI Part #: 1400-001-001

ISRI #: 200, 201, 202

Sizing Dimensions:	60" L x 24" W x 12" H maximum
Thickness:	1/4" minimum
Minimum Density:	50 lb/ft^3
Typical Density:	55 - 70 lb/ft^3

Description / Typical Constituents

Consists of steel scrap and wrought iron excluding galvanized and blackened steel. Materials can include automobile scrap and parts, appliances, plate, structural shapes and beams, large machinery, pipe and tube, rebar, racking and frames, nuts, bolts, nails, dies, uncut/unbroken steel tire rims and other industrial scrap.

Prohibitions

Non-ferrous and non-metallic materials shall not exceed 1% by weight of the delivered load. Rebar or uncut/unbroken steel tire rims shall not exceed more than 5% by weight of the delivered load.

May not contain galvanized and blackened steel, non-ferrous metals, trash, dirt, insulation, concrete, rocks, grease, oil, tin cans, turnings, borings, cast iron, chains, cables, banding, springs, counterweights, municipal scrap, incinerator scrap, stainless steel, exhaust system components, torque converters, sealed containers and tanks, shock absorbers, electric motors, alternators, and wiring harnesses.

Acceptance Criteria: Material is subject to visual inspection and visual classification, inspection for prohibited items and over/undersized material, chemistry and density checks, mechanical weighing on certified scales, and radiation detection. All conditions apply as are detailed in the *General Requirements* section of the *Iron & Steel Scrap Manual*.

Chemistry	Fe	C	Mn	Si	P	S	Cu	Cr	Ni	Mo	Sn
Minimum wt %	95.0	--	--	--	--	--	--	--	--	--	--
Maximum wt %	--	0.50	1.50	0.50	0.040	0.050	0.35	0.20	0.30	0.060	0.025

#2 HMS

SDI Part #: 1400-002-001

ISRI #: 203, 204, 205, 206

Sizing Dimensions:	60" L x 24" W x 12" H maximum
Thickness:	1/8" minimum
Minimum Density:	45 lb/ft^3
Typical Density:	50 - 65 lb/ft^3

Description / Typical Constituents

Consists of steel scrap and wrought iron including galvanized and blackened steel. Materials can include automobile scrap and parts, appliances, plate, structural shapes and beams, large machinery, pipe and tube, rebar, racking and frames, nuts, bolts, nails, dies, uncut/unbroken steel tire rims and other industrial scrap.

Prohibitions

Non-ferrous and non-metallic materials shall not exceed 1% by weight of the delivered load. Rebar or uncut/unbroken steel tire rims shall not exceed more than 5% by weight of the delivered load.

May not contain non-ferrous metals, trash, dirt, insulation, concrete, rocks, grease, oil, tin cans, turnings, borings, cast iron, chains, cables, banding, springs, counterweights, municipal scrap, incinerator scrap, stainless steel, exhaust system components, torque converters, sealed containers and tanks, shock absorbers, electric motors, alternators, and wiring harnesses.

Acceptance Criteria: Material is subject to visual inspection and visual classification, inspection for prohibited items and over/undersized material, chemistry and density checks, mechanical weighing on certified scales, and radiation detection. All conditions apply as are detailed in the *General Requirements* section of the *Iron & Steel Scrap Manual*.

Chemistry	Fe	C	Mn	Si	P	S	Cu	Cr	Ni	Mo	Sn
Minimum wt %	95.0	--	--	--	--	--	--	--	--	--	--
Maximum wt %	--	0.50	1.50	0.50	0.040	0.050	0.40	0.25	0.35	0.080	0.030

SUPPLIER COMPLIANCE AGREEMENT

The undersigned supplier has read and agreed to this *Iron & Steel Scrap Manual*. This includes acknowledgement of the specifications, terms & conditions outlined within this mill specific document.

The supplier acknowledges that Steel Dynamics Columbia City may not accept any shipment as a whole or in part that does not meet the conditions and specifications described within this manual. The supplier also acknowledges that by violating this agreement they may be disqualified from supplying raw material to Steel Dynamics Columbia City.

Although Steel Dynamics Columbia City will exercise reasonable effort to inspect scrap shipments, materials supplied can contain constituents not readily detected during normal inspection, which expose Steel Dynamics Columbia City to hazards associated with its use. Such constituents may include, for example, sealed containers, radiation sources, hazardous or flammable liquids. In all cases, Steel Dynamics Columbia City's acceptance of any shipment shall not constitute any waiver of its rights to pursue a claim of damages if subsequent use results in damage or injury to personnel or property.

I, the undersigned supplier, or authorized representative of said supplier, do hereby acknowledge receipt and understanding of the specifications, terms & conditions of this agreement.

Please complete and return by email to: Tim Brinneman Tim.Brinneman@steeldynamics.com Direct: (260) 469-4339		
Company Name:		
Address:		
City:	State:	Zip:
Representative's Name:		Title:
Phone:	Mobile:	Fax:
Email:		
Signature:		Date:

NON-DISCLOSURE AGREEMENT

Dear Supplier:

Thank you for your interest in serving as a supplier to Steel Dynamics Columbia City. For purposes of evaluating a potential business relationship between Steel Dynamics and Supplier, Supplier has requested that Steel Dynamics furnish Supplier with certain information relating to the operations, assets, finances, transactions and general business of Steel Dynamics and its affiliates (the "Confidential Information"). Steel Dynamics agrees to provide such Confidential Information to Supplier, subject to the express terms of this agreement ("Agreement").

For purposes of this Agreement, Confidential Information shall include but not be limited to all data, reports, records, trade secrets, financial statement and projections, customer and supplier identities and information, and/or other information and materials, whether in written, oral, electronic or other format, disclosed to Supplier both prior to and subsequent to executing this Agreement; in addition to any analyses, notes, reports, memoranda, work papers or work product prepared by Supplier or any of Supplier's employees, agents or representatives ("Supplier Representatives") derived from, based upon or containing Confidential Information. Confidential Information shall be expressly included in the fact that Steel Dynamics and Supplier are contemplating a business relationship and the fact that Supplier has been permitted access to the Confidential Information.

In consideration of Steel Dynamics furnishing the Confidential Information, Supplier agrees to the following:

1. Supplier shall maintain such Confidential Information in strict confidence. Supplier shall not, directly or indirectly, disclose the Confidential Information to any other person or entity without the written consent of an authorized Officer of Steel Dynamics; provided, however, Supplier may disclose Confidential Information (a) subject to Section 3 of this Agreement, to those of Supplier's Representatives that have a need to review the Confidential Information to assist Supplier in evaluating the business relationship; and (b) subject to Section 7 of this Agreement, if required by law or valid legal process.

2. Supplier shall not use the Confidential Information for any purpose other than in connection with the business relationship and shall not use the Confidential Information in any manner that exploits or disadvantages Steel Dynamics or benefits any third party.

3. Supplier shall inform Supplier Representatives of Supplier's obligations under this agreement and will obligate Supplier Representatives to abide by the terms of this Agreement. In any event, the actions and omissions of Supplier Representatives shall be deemed by actions of Supplier with respect to the Confidential Information and, Supplier agrees that it is liable for any breach of this Agreement by Supplier Representatives. Supplier acknowledges and agrees that any unauthorized use or disclosure of the Confidential Information shall constitute a material breach hereof and shall cause irreparable harm and loss to Steel Dynamics and its affiliates.

4. Upon Steel Dynamics request, Supplier shall either destroy or return to Steel Dynamics (at Steel Dynamics election) all Confidential Information (including all copies thereof) in possession of Supplier or Supplier Representatives.

5. Supplier shall take such action within five (5) business days of any such request and upon request of Steel Dynamics, shall supply Steel Dynamics with a written certification that Supplier has fulfilled its obligations under this Section 4.

6. Supplier acknowledges and agrees that Steel Dynamics is the exclusive owner of the Confidential Information, including all intellectual property rights contained therein. No license or conveyance of any such rights is granted to Supplier or implied under this Agreement.

7. In the event that Supplier and/or Supplier Representatives are required by law or valid legal process to disclose any of the Confidential Information, Supplier shall provide Steel Dynamics with prompt written notice so that Steel Dynamics may seek a protective order or other appropriate remedy and/or waive compliance with the provisions of this Agreement for purposes of such limited disclosure. If, in the absence of a protective order or the receipt of a waiver by Steel Dynamics, Supplier and/or Supplier Representative are nonetheless required to disclose Confidential Information, Supplier and/or Supplier Representatives may, without liability hereunder, disclose only that portion of the Confidential Information which, in the opinion of its respective counsel, is legally required to be disclosed.

Supplier understands that Steel Dynamics makes no representations or warranties regarding the accuracy or completeness of any Confidential Information. Supplier agrees that Steel Dynamics shall have no liability to Supplier or any Supplier Representative arising out of or in connection with the Confidential Information.

It is further understood that Steel Dynamics Columbia City has appointed Tim Brinneman, or his designee (“Agent”) as its contact person for purposes of this Agreement. Supplier agrees that it shall direct all communications and requests for information regarding Steel Dynamics through Agent or Agent’s designated legal counsel. Supplier understands that unless specifically authorized by Agent, Supplier and Supplier’s Representatives may not contact any other employee, or representative of Steel Dynamics. In addition, Supplier and Supplier Representatives shall be prohibited from contacting any Steel Dynamics customers or Suppliers unless first receiving written authorization from Agent or an authorized Officer of Steel Dynamics.

Supplier further acknowledges and agrees that Steel Dynamics shall have no obligation to authorize or pursue a business relationship with Supplier or any other party. Steel Dynamics shall be free to pursue a potential business relationship with any party, as Steel Dynamics in its sole discretion shall determine.
This Agreement shall remain in full force and effect for so long as Supplier has access to any Confidential Information, and for a period of five (5) years thereafter. In the event of any breach of this Agreement by Supplier or Supplier’s Representatives, Steel Dynamics and its affiliates, (in addition to and not in lieu of any other remedies at law or in equity that it may have), shall be entitled, without the requirement of posting a bond or other security, to equitable relief, including injunctive relief and specific performance.

This Agreement shall be governed by, and construed and enforced in accordance with, the laws of the State of Indiana, without regard to its conflicts of law rules. In any action to enforce this Agreement, the prevailing party shall be entitled to recover its reasonable attorney's fees and costs. In the event that any portion of this agreement shall be deemed unenforceable, the balance of this Agreement shall remain enforceable and be interpreted as if the unenforceable provision is deleted from this Agreement. This Agreement shall bind Supplier's successors and assigns, and any assignment of this Agreement by Supplier without prior written consent of Steel Dynamics shall be void. This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof and may be amended or modified only in a written instrument executed by the parties hereto.

If Supplier is in agreement with the foregoing, please sign and return one copy of this Agreement to Steel Dynamics, which thereupon will constitute an Agreement between parties, each intending to be legally bound, with respect to the subject matter hereof.

Sincerely,

Steel Dynamics, Inc. – Long Products Group, Structural & Rail Division

BY: Tim Brinneman

TITLE: SRD Purchasing Agent

ACCEPTED AND AGREED TO BY SUPPLIER:

BY: _____

TITLE: _____

COMPANY: _____

DATE SIGNED: _____

APPENDIX A – ADDITIONAL TRUCKING INFORMATION

Steel Dynamics, Inc.®

DRIVERS MUST READ THIS CARD BEFORE UNLOADING AT STEEL DYNAMICS:

SIDE 1

Think Safe Work Safe

SAFETY - Your Safety Is Your Personal Responsibility

1. **HARD HAT** - Must be WORN AT ALL TIMES.
2. **GLASSES** - Must wear safety glasses WITH SIDE SHIELDS.
3. **SHIRT** -Short sleeve shirt with a minimum of a 4" sleeve
4. **LONG PANTS** - Are required, this means NO SHORT PANTS while on site.
5. **CLOSED-TOE SHOES** - Leather, tennis shoes or boots WHILE ON SITE.
6. **HI-VIS VEST** – Must be worn when outside the truck.

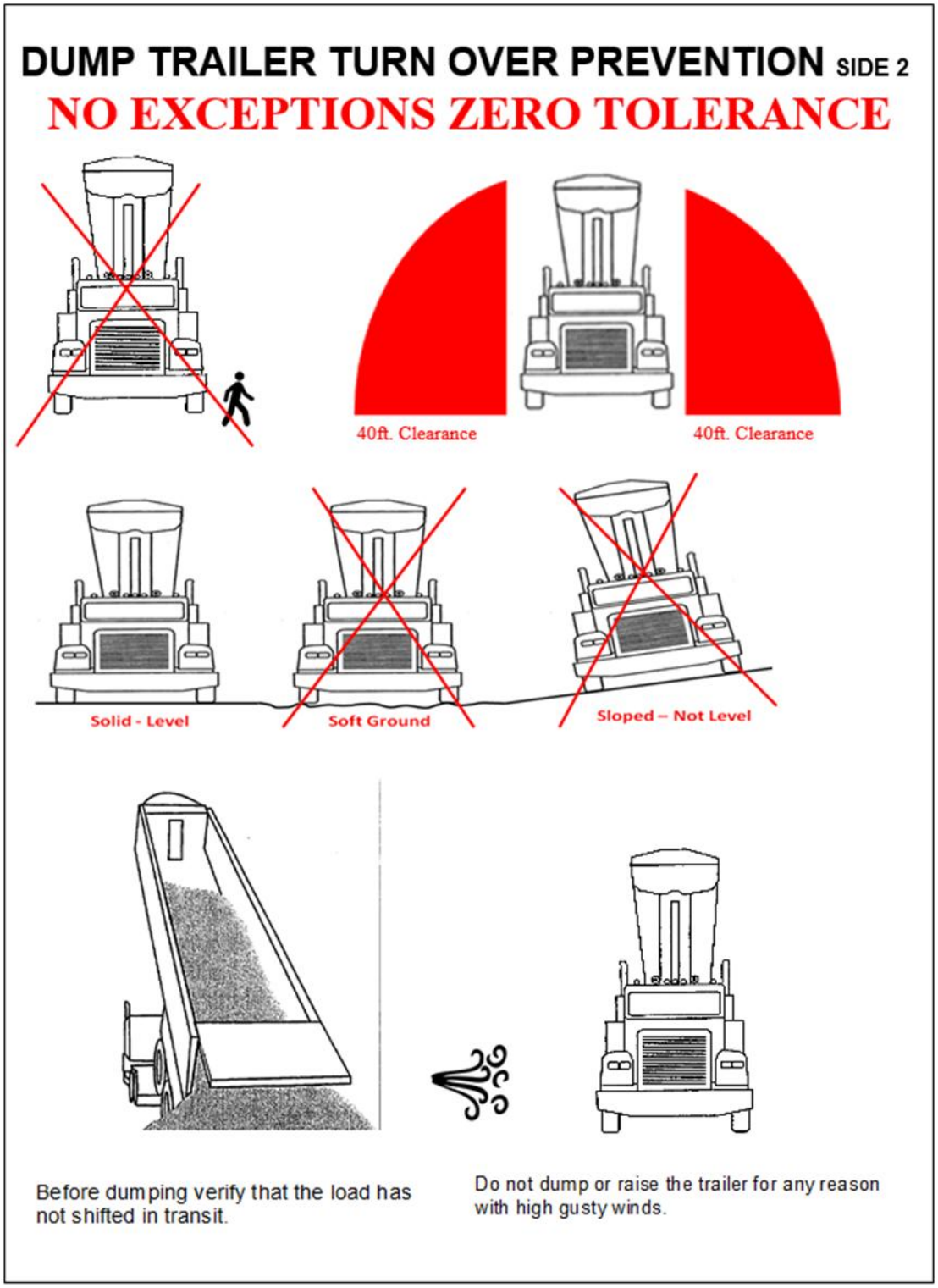
DRIVING ON STEEL DYNAMICS PROPERTY

- Drivers MUST obey the speed limit signs. Where no signage is posted 20 MPH is the maximum speed.
- Drivers MUST come to a full stop at all STOP signs and railroad tracks.
- Trucks MUST NOT park or stop on railroad tracks and must park at least 15 ft. from tracks.
- NO alcohol or drugs are permitted on SDI property.
- NO passengers or pets are allowed OUTSIDE THE CAB of the truck upon entering the main gate. Passengers Must Be 18yrs of age or older.
- Railroad and pedestrian traffic ALWAYS have the right of way.
- NO talking on cellular phones, hands-free or text messaging WHILE DRIVING on premises. PULL OVER TO USE these devices.
- Drivers MUST STAY 10' AWAY from railroad cars at all times.
- Drivers MUST wear seat belts when driving in the plant.
- Firearms or other weapons are NOT allowed on the plant site.

(CONTINUED ON BACK)

SDI Monitors Channel: #10

Ultimately it is the drivers responsibility to determine if the load is safe to dump. Failure to adhere to any of the above requirements will result in not being unloaded and may jeopardize future participation with Steel Dynamics Inc.



TOWING AND RECOVERY SERVICE USED TO RECLAIM TRUCK

WILL BE LEFT UP TO THE TRUCKING COMPANY'S DISCRETION

SCRAP PAD TRUCK OFFLOADING ZONES

1. **THE TRUCK DRIVER CAN EXIT THE CAB OF THE TRUCK ONLY WHEN IN THE GREEN ZONE. ALL PARTS OF THE TRUCK INCLUDING THE GATE MUST REMAIN IN THIS ZONE WHEN THE TRUCK DRIVER IS LATCHING OR UNLATCHING THE TRUCK GATE.**

2. **THE TRUCK DRIVER CAN BACK THE TRUCK UP INTO THE YELLOW ZONE FOR OFFLOADING BUT MUST REMAIN IN THE CAB AT ALL TIMES. EXITING THE CAB IN THIS ZONE IS FORBIDDEN.**

3. **NO PART OF THE TRUCK IS ALLOWED TO BREACH THE RED ZONE. ENTERING THIS ZONE IS STRICTLY PROHIBITED AND THE TRUCK DRIVER WILL BE PERMANENTLY BANNED FROM OUR SITE.**

APPENDIX B – DUMP TRAILER TIP-OVER PREVENTION PROGRAM

Dumping Equipment Safety
Critical Inspection Points – Roll-Off Trailers & Dump Trailers

Trailer/Container Door Condition

- Check all welds for breaks and/or corrosion
- Maintain (grease) and inspect all hinges
- Maintain (grease) and inspect all chains/binders

Dumping Equipment Safety
Critical Inspection Points – Roll-Off Trailers & Dump Trailers

Rear Suspension / Trailer Frame:

- Check all airbags for proper inflation (free of leaks).
- Ensure all mounting brackets are free of corrosion.
- Ensure all lines to airbags are in good condition (free of chafing or leaks)

- Ensure there are no broken:
  - Springs
  - Spring Center Bolts
  - Shackle Bolts

- Ensure all hinge/dump pins are maintained, lubricated and in good condition (free of cracks and/or excessive wear)

Dumping Equipment Safety
Critical Inspection Points – Roll-Off Trailers & Dump Trailers

Rear Suspension / Trailer Frame - *Continued*:

- Ensure tires are properly inflated. Ensure rims/wheels are free of cracks, breaks and missing/broken lugnuts.

- Ensure the frame of the dump trailer or roll-off container has no breaks in the frame. Ensure all bolts and welds are in good condition and properly securing the trailer or roll-off frame to the chassis of the trailer.

Dumping Equipment Safety
Critical Inspection Points – Roll-Off Trailers & Dump Trailers

Dump Tub / Trailer Frame:

- Inspect and maintain dump tub properly to ensure it's free of breaks, cracks, broken welds and broken mounting brackets.

- Ensure all cylinder mounts are properly lubricated and free of cracks or breaks.

- Ensure all cylinder pins are visibly in place and not working their way out of their mounts.

Dumping Equipment Safety
Critical Inspection Points – Roll-Off Trailers & Dump Trailers

Dump Tub / Trailer Frame - *continued*:

- Inspect all hydraulic cylinders, fittings, hoses and valves for blown, bulging or leaking seals.

- Ensure all rollers on a roll-off trailer have a retaining bolt or cotter key present in order to prevent the loss of a roller.

Dumping Equipment Safety
Critical Inspection Points – Roll-Off Trailers & Dump Trailers

Landing Gear & Fifth Wheel Area:

- Inspect all landing gear bolts, brackets and welds for excessive wear and/or corrosion. Ensure all bolts are tight, not allowing the landing gear to move while in use.

- Ensure fifth wheel plate is free of cracks and that the fifth wheel pin is secure and in good condition.

- Check hydraulic fittings for cracks, leaks or missing parts.

Suggested Material Loading Practices

Scrap metal bundles should be loaded with a grapple or magnet in order to ensure even distribution of material.

Evenly Loaded Trailer – Best Practice

Unevenly loaded trailer – Tip over Risk

Suggested Material Loading Practices

Plate & Structural-type material should be loaded with a grapple or magnet in order to ensure even distribution of material.

Evenly Loaded Trailer – Best Practice

Unevenly Loaded Trailer – Tip Over Risk

Unnecessary Void

Suggested Material Loading Practices

Busheling-type material should be loaded with a grapple, magnet or conveyor in order to ensure even distribution of material.

Evenly Loaded Trailer – Best Practice

Unevenly loaded trailer – Tip over Risk

Suggested Material Loading Practices

Turnings and Borings should be loaded with a conveyor, magnet or loader in order to ensure even distribution of material.

Evenly Loaded Trailer – Best Practice

Unevenly loaded trailer – Tip over Risk

Suggested Material Loading Practices

Shredded scrap should be loaded with a magnet or loader in order to ensure even distribution of material.

Evenly Loaded Trailer

Best Practice

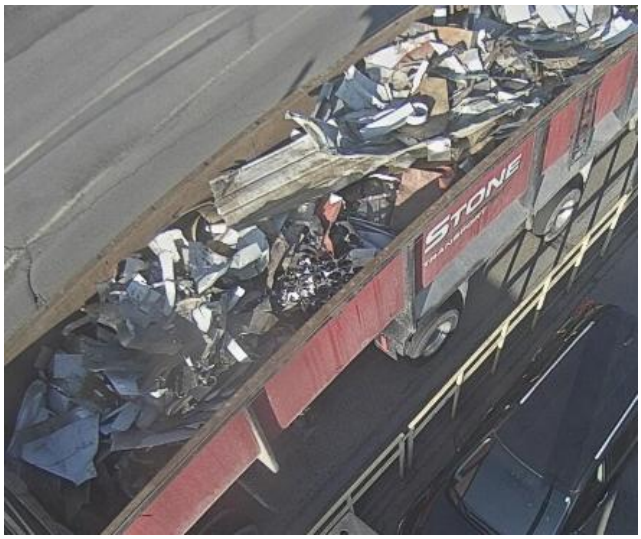
Unevenly Loaded Trailer

Tip over Risk

APPENDIX C – EXAMPLES OF NON-CONFORMING SCRAP

1. Low Density, Tangled Material – Rebar, Rods, Banding, Skeleton Plates, Sheeting, Wire, Rims

2. Low Density, Tangled Material – Rebar, Rods, Banding, Skeleton Plates, Sheeting, Wire, Rims (cont.)



3. Bundles, Coils, Bales, Briquettes, Blocks

4. Bundles, Coils, Bales, Briquettes, Blocks (cont.)

5. Non-metallics, Dirt, Fluff, Yard Clean-ups

6. Non-metallics, Dirt, Fluff, Yard Clean-ups (cont.)

7. Large Cast Pieces, Skulls, and/or Mill Scrap

8. Pinched Pipe & Sealed Containers

9. Counterweights and Other Leaded Weights

10. Cast Iron, Brake Shoes

11. Nonferrous Scrap

12. Rust

13. Oversized – Sheet, Tool & Die, Rolls, Machinery

14. High Alloy

15. High Alloy (cont.)

16. Wire, Rods, Bolts & Nails

17. Turnings, Borings, Swarf, Fines

APPENDIX D – CALCULATING THE BULK DENSITY OF DELIVERED SCRAP

1. **Determine the cubic feet volume of the truck trailer or railcar.**
   Measure the inside length, width, and height of the truck trailer or railcar in feet. Multiply these three numbers.

   Railcar Volume = Length X Width X Height = 52.5 feet X 9.5 feet X 5.5 feet = 2,743 cubic feet

2. **Determine the total pounds of scrap in the truck trailer or railcar.**
   Subtract the tare weight of the truck trailer or railcar from the gross weight of the truck trailer or railcar.

   Scrap Weight = Railcar Gross Weight – Railcar Tare Weight = 170,000 lbs – 68,000 lbs = 102,000 lbs

3. **Estimate the percentage of the truck trailer or railcar that has been filled with scrap.**
   Visually estimate the fullness of the truck trailer or railcar from a range of 0 to 100%.

   Railcar Fullness = 75%

4. **Calculate bulk density of the scrap in the truck trailer or railcar using previously determined data.**
   Multiply the truck trailer or railcar volume by the truck trailer or railcar fullness to estimate scrap volume.

   Scrap Volume = Railcar Volume X Railcar Fullness = 2,743 cubic feet X 75% = 2,057 cubic feet

   Then divide the scrap weight in the truck trailer or railcar by the scrap volume in the truck trailer or railcar.

   Bulk Density of Scrap = Scrap Weight / Scrap Volume = 102,000 lbs / 2,057 cubic feet = 50 lb/ft^3

5. **Compare the calculated bulk density of the scrap with the minimum density specification.**
   The estimated bulk density of the delivered scrap is 50 lb/ft^3. Compare this value to the minimum density specified for the corresponding scrap commodity outlined in the *Iron & Steel Scrap Manual* to determine if the load is within conformance. Downgrade or reject the load if it does not meet the minimum density specification for the corresponding scrap commodity.

   As an example, had this railcar been a delivery of #1 Shredded scrap, it would not pass the minimum density specification of 58 lb/ft^3. The scrap inspector would then evaluate whether this load could be downgraded to #2 Shredded scrap at a minimum density of 50 lb/ft^3. After inspecting the railcar, it was determined that the load contains more than 5% non-ferrous and non-metallics. This violates one of the prohibited items in the #2 Shredded specification which therefore warrants the rejection of this railcar.

APPENDIX E – IMPACT OF SCRAP QUALITY ON PRODUCTION

Dirt in the Furnace

Lime is added to the electric arc furnace to counteract the dirt coming in with the scrap and anthracite coal. This ensures foamability of the slag can be achieved during the refining stage of the heat. The resulting slag mass formed from the dirt and lime is a primary driver for the heat's yield loss due to the iron that becomes trapped in the slag as FeO oxide. The slag also absorbs energy from the liquid steel bath which influences the total arc time of the heat. In the below scenario, every 1.00 gross ton of dirt that is introduced into the electric arc furnace will increase the total arc time by 3.3 minutes and result in an additional 1.30 gross tons of iron loss to the slag.

Dirt	+	Lime	=	Slag	>	Iron Loss	
1.00		1.38		4.81		1.30	Gross Ton
				4.64			MWh

High Silicon Scrap in the Furnace

Dirt is composed primarily of silica (SiO_2), alumina (Al_2O_3), and titania (TiO_2). Therefore, any quantity of silicon (Si), aluminum (Al) or titanium (Ti) alloy in the scrap will oxidize in the electric arc furnace and form dirt. Cast iron can have a silicon content of 1 – 3% while electrical steels can have a silicon content of 1 – 6%. There is also a yield loss that occurs from the dirt that is formed from the oxidation of silicon alloy in these scraps. In the below scenario, every 1.00 gross ton of silicon metal that is introduced into the electric arc furnace will increase the total arc time by 0.6 minutes and result in an additional 2.78 gross tons of iron loss to the slag.

Si Metal	+	O_2 Gas	=	Dirt	+	Lime	=	Slag	>	Iron Loss	
1.00		1.14		2.14		2.96		10.30		2.78	Gross Ton
				9.15				9.92			MWh

Rust in the Furnace

Rust is a surface oxide that will form on the scrap at room temperature. The rate of formation is influenced by the amount of water vapor in the air (i.e. humidity or rain) and the time it is exposed in that environment. The iron in the oxide can be recovered in the electric arc furnace by a process called oxide reduction. This type of reaction requires both carbon and energy to complete. The rust content of the scrap will influence the total arc time of the heat. The chemical composition of rust can be simplified to Fe_2O_3 which contains 70% iron by weight. Therefore, rust can only have a 70% yield at best in the electric arc furnace. In the below scenario, every 1.00 gross ton of rust that is introduced into the electric arc furnace will increase the total arc time by 0.9 minutes and elevate emissions.

Rust	+	Coal	=	Dirt	+	Iron Gain	+	CO_2 Gas	
1.00		0.26		0.03		0.70		0.83	Gross Ton
						1.23			MWh

Water in the Furnace

Water presents an explosive hazard when introduced to liquid steel in the electric arc furnace. One cubic foot of liquid water has the potential to expand to 1,600 times its volume as steam. Additionally, the weight of water in the scrap is all yield loss as it evaporates. Every 1.00 gross ton of liquid water that is introduced into the electric arc furnace requires 0.85 megawatt-hours of energy to convert to steam which increases the total arc time by 0.6 minutes.

APPENDIX F – DOCUMENT REVISION HISTORY

Revision Number	Revision Date	Nature of Revision	Approved By
0	12/18/23	Original issue	Dustin Arvola
1	04/04/25	Added higher quality company logo; removed #1 Bundles, #2 Bundles, Banded Coils, Turning Bundles & Turnings spec sheets; revised P&S max copper spec from 0.15 to 0.20	Dustin Arvola Clay Gross
2	05/04/26	Updated pictures in Appendix C – Examples of Non-Conforming Scrap; Added Appendix E – Impact of Scrap Quality on Production	Dustin Arvola Clay Gross
3	06/23/26	Added allowable quantity of uncut/unbroken steel tire rims in #1 HMS and #2 HMS spec sheets; Added uncut/unbroken steel tire rims to Appendix C – Examples of Non-Conforming Scrap	Dustin Arvola Clay Gross