



# Scrap Raw Materials Specification Manual

**CMC Steel Florida**

# SCRAP RAW MATERIALS SPECIFICATION MANUAL

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## INTRODUCTION

CMC Steel Florida wishes to consistently provide the best ferrous raw materials market to its suppliers. In order to pay competitive prices and provide the best market for ferrous raw materials, it is imperative that the quality of raw materials purchased produces a clean, dense charge for our electric furnace. Dirty raw materials, oversize raw materials, and contaminated raw materials cannot be used to produce quality finished steel products at competitive prices.

This raw materials manual has been provided to let you, CMC Steel Florida's suppliers of raw materials, know how we operate and know what is acceptable quality and what is not acceptable quality in each raw material commodity. Your efforts in applying these standards to every load of raw materials are appreciated and will continue to be rewarded. All CMC Steel Florida personnel involved in the purchasing, receiving, grading or unloading of raw materials resources are taught to use the Golden Rule in applying the standards and policies set-forth in this manual. The success of any policy or standard is dependent upon the good judgment and fair mindedness of each person involved in its application. Our objective is to treat every supplier courteously and fairly each time.

The standards used in this manual are derived from the Institute of Scrap Recycling Industries' (ISRI) specifications and have been modified to meet CMC Steel Florida's particular raw materials requirements.

## GENERAL TERMS AND CONDITIONS

- A. **PURCHASING OF RAW MATERIALS** is handled by the Raw Materials Department. Raw Materials Department may be contacted at 803.936.3801 or at 803.936.3804.
- B. **PRICES** are quoted for each raw material commodity primarily at the beginning of each month and may be applicable for (a) the entire month; (b) the remainder of that particular month; (c) for a given period of time to be specified; or, (d) for a specific quantity to be delivered by a specific date. A purchase contract with a corresponding purchase order number (P.O.) will be issued for specific grades and quantities to be completed within a specific period of time, generally for one calendar month. Balances on any P.O. not shipped by the specified completion date may be cancelled or extended at the discretion of the CMC Steel Florida Raw Materials Department. **(All prices are quoted in Gross Tons and all quantities expressed on a P.O. are in Gross Tons.)**
- C. **DELIVERY** may be made in truckload (at agreed upon minimum weights) or carload quantities (at agreed upon minimum weights) as specified at the time of purchase.
- D. **SCALE HOUSE HOURS:** Please contact Raw Materials Department for current scale hours.
- E. **RECEIVING AND GRADING** – CMC Steel Florida’s weights and grading will govern final settlement for all raw materials purchases. A current CMC Steel Florida purchase order must be on file for each shipment. No raw materials will be received at the scale unless:
1. A purchase order number has been issued to the supplier by an authorized Raw materials representative and must be referenced on all correspondence and shipping documents.

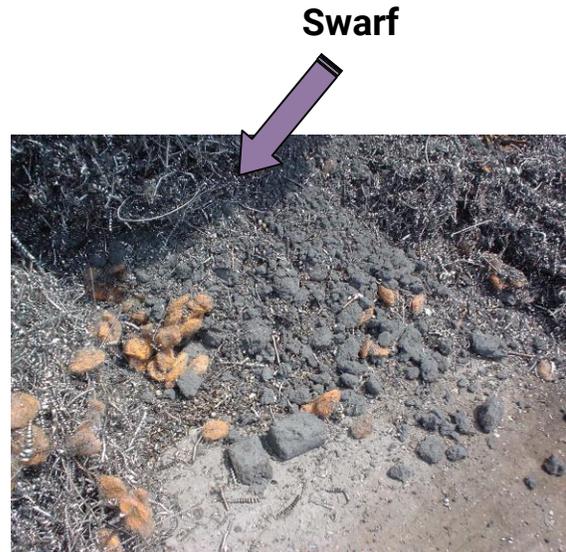
2. In the case of truck delivery, the driver must provide the Scale Operator with:
  - a. Purchase order number
  - b. Yard of origin
  - c. Grade being delivered
  - d. Bill of Lading
3. In the case of rail shipment, the shipper must notify CMC Steel Florida's Raw materials Department prior to the arrival of the car at CMC Steel Florida.
4. We will not accept rail shipments without complete prior notification. Shipments without prior notice may be returned to origin at the supplier's expense or supplier may be responsible for demurrage charges incurred while the car's origin is being determined. In the event a shipment is received without prior notification and is unloaded, for whatever reason, CMC Steel Florida's grading will govern settlement.
5. The Scale Administrator will note the grade (i.e. shredded, #2HMS, etc.) on the scale ticket. The Scale Administrator will notify a Scrap Inspector, Scrap Yard Supervisor, Melt Shop Manager who will then notify the Raw Materials Department of any substandard raw materials shipment. The shipper will then be notified by the Raw materials Department and the material will be held for downgrading upon supplier's acceptance or rejected at the sole discretion of CMC Steel Florida. In all cases, shipments held for disposition (downgrade/radiation) must be cleared within (24) hours except weekends or holidays, with any detention, demurrage, or other charges being the sole responsibility of the supplier.
6. After a shipment is weighed in, it will be the responsibility of the raw materials inspector and the crane operator on duty to inspect the remainder of the shipment and determine whether it meets the quality standards as set forth in CMC Steel Florida's RAW MATERIALS SPECIFICATION MANUAL.

7. Disputes over substandard material, contracts, grading, unloading, etc., on raw materials delivered after normal business hours (8:00am to 5:00pm, Monday through Friday) will be handled during the next day's normal business hours, and the shipment will not be unloaded, or if unloading has begun, will not be completed until the appropriate personnel have been contacted and have had an opportunity to inspect the load during normal daylight hours and come to a decision regarding acceptability.
  8. Rejected truckloads or carloads of raw materials become the supplier's responsibility at the time of notification. The Raw materials Department will make every effort to assist the supplier and minimize the negative effects of a problem shipment.
  9. All freight charges or demurrage charges for a rejected shipment are the responsibility of the shipper, and will either be billed to the shipper, or deducted from a current or future shipment.
- F. **TRUCK UNLOADING** will be accomplished as carefully as possible with respect to the driver's safety and care of his truck and trailer and surrounding people and property.
- G. **SAFETY** is paramount at CMC Steel Florida. Only the driver will be allowed into the raw materials storage area. Drivers will be trained to our **Critical Driver Safety Rules for Melt Shop Scrap Area and DAMAGE Waiver. Drivers are always to follow Safety Rules.**
- H. **PAYMENTS** are made by check or ACH and are issued promptly per the payment terms agreed to and noted on the P.O. Please do not send invoices to CMC Accounts Payable Shared Services as we pay based on CMC's receiving weight tickets. During the end of month closing periods, there could be a slight delay in issuing checks.

## GENERAL RAW MATERIALS SPECIFICATIONS

In order to better understand the terms used in this plan, the following definitions are provided:

**CLEANLINESS:** All grades shall be free of dirt, non-ferrous metals, excessive rust and corrosion, or foreign material of any kind. However, the terms “free of dirt, non-ferrous metals or foreign material of any kind” are not intended to preclude the accidental inclusion of negligible amounts where it can be shown that the amount is unavoidable in the customary preparation and handling of the particular grade involved. CMC Steel Florida will not accept any non-metallic or steel by-products such as mill scale, slag, grinding dust or swarf.



**RESIDUAL ALLOYS:** Wherever the term “free of alloys” is used in the classifications given herein, it shall mean that any alloys contained in the steel are residual and have not been added for the purpose of making alloyed steel.

**OFF-GRADE MATERIAL:** The inclusion in a shipment of a particular grade of iron or steel raw materials of a negligible amount of metallic material which exceeds to a minor degree the applicable size limitations or which fails to a minor extent to meet the applicable requirements as to quality or kind of material, shall not change the classification of the shipment, provided it can be shown that the inclusion of such off-grade material is unavoidable in the customary preparation and handling of the grade involved. The final determination of these occurrences are at the sole discretion of appropriate CMC Steel Florida personnel involved in the inspection, grading and unloading of raw materials.

**DRUMS:** Drums (including buckets and barrels) of any size will not be accepted as raw materials unless it can be demonstrated that they do not contain any hazardous materials and have been completely cleaned and processed to our satisfaction.

**DEVIATIONS:** Deviations from the general classifications of iron and steel raw materials given herein may be allowed by mutual written agreement between CMC Steel Florida Raw Materials Department and the supplier.

## ENVIRONMENTAL ASPECTS

Part of CMC Steel Florida's "It's Got To Be Right!" philosophy is caring about the needs of the community, which begins with the environment; one of clean air, land and water. Environmental issues are managed at CMC Steel Florida by an on-site staff under the direction of the Environmental Manager. Any environmental question or issue should be directed to the Environmental Department at 904.266.1407.; with the Raw materials Department advised of the final resolution by the CMC Steel Florida Environmental Department.

**Hazardous Air Pollutants (HAP) Emissions:** Contaminants such as chlorinated plastics, free organic liquids, lead and mercury are not appropriate or desired for the production of steel in EAF facilities. However, these contaminants can be found in the scrap steel that is the basic feedstock for the production of new steel and should only be at levels that are as low as reasonably achievable.

EPA has identified EAF facilities as potential sources of HAP emissions and on December 28, 2007 promulgated final regulations (codified at 40 CFR Part YYYYY) intended to control or minimize such emissions. The regulations require EAF facilities, among other things, to restrict the use of certain scrap purchased as production feedstock to minimize the amount of specified contaminants in such scrap.

CMC Steel Florida is committed to complying with the requirements of the EAF Area Source Rule and to the goal of removing at least 80% of mercury convenience-light switches from motor vehicle scrap. CMC is also committed to minimizing to the extent practicable the presence of other contaminants in scrap that may result in the emission of hazardous air pollutants (HAP).

**CMC Steel Florida will only purchase motor vehicle scrap from scrap vendors that participate in The National Vehicle Mercury Switch Removal Program (NVMSRP) or another EPA-approved program designed to minimize the presence of mercury in scrap. Scrap Vendors must provide written documentation of participation in this program twice annually in June and December to CMC Steel Florida Environmental Department.**

Scrap materials must be depleted to the extent practicable of undrained used oil filters, chlorinated plastics, and free organic liquids at the time of charging to the furnace.

Lead-containing components of scrap, such as batteries, battery cables, and wheel weights, must be removed, to the extent practicable, prior to charging in the furnace unless the scrap is used to produce leaded steel.

**PLEASE PAY STRICT ATTENTION TO THIS ISSUE.**

**CLOSED CONTAINERS/SEALED UNITS**

SAFETY of our employees comes first and foremost along with protecting our property/equipment. Closed containers and sealed units can a serious explosion hazard, which may result in the loss of life, limb, and/or property. Any shipper that fails to address this issue may result in the suspension or termination as an approved raw materials supplier to CMC Steel Florida.

**NO closed containers will be accepted.** These include, but are not limited to, propane cylinders, freon canisters, torque converters, sheared pipe (has to be open on one end), gear boxes, compressed gas cylinders, fire extinguishers, hydraulic cylinders, munitions raw materials, air compressor tanks, fuel tanks, acetylene cylinders, and any other sealed unit or closed container.

**Shipments containing ANY "CLOSED CONTAINERS" WILL BE REJECTED.**



**PLEASE PAY STRICT ATTENTION TO THIS ISSUE.**

## **RADIOACTIVE RAW MATERIALS**

CMC Steel Florida protocol requires that any shipment of raw materials that sets off our radiation detection equipment will be rejected and any expenses incurred will be charged to the account of the shipper. This may result in the supplier being forbidden to ship raw materials to CMC Steel Florida until the supplier demonstrates that efforts have been made to correct the problem. In addition, CMC Steel Florida will not purchase any “decontaminated” raw materials regardless if it was performed by the U.S. Government or U.S. Government approved contractor or even if you have a “certificate of decontamination” for the raw materials.

Any material with readings above 2000 uR/hr or 2 mR/hr must be reported to the Florida Department of Health and Radiation Control Division for their disposition; all related costs are the responsibility of the shipper. We encourage suppliers to install and properly maintain radiation detection equipment and establish a protocol to eliminate radioactive raw materials from being purchased at their facility. If you have any questions or need assistance with your procedures, please contact our Environmental Manager.

The Florida Department of Health and Radiation Control Division will be notified prior to returning any load to the supplier.

### **Potential Radiation Alarms**

CMC Steel Florida has radiation detectors located at the rail and truck scales that are designed to detect any radiation activity which may occur when incoming shipments of raw materials are delivered.

The system is designed to solve most of the problems, but it is impossible to prevent any spurious alarms. These alarms are not false alarms because they are caused by a real increase in radiation level. In most cases, these alarms have the same characteristics as a real alarm, but CMC Steel Florida prefers to call them nuisance alarms.

The detectors contain sophisticated data processing that minimizes and differentiates the real from the nuisance alarms.

**CMC Steel Florida has a policy prohibiting off-loading any type of raw materials that causes the radiation detector to alarm, which may include nuisance alarms. Raw Materials nuisance alarms will be treated as real alarms because the potential for a radioactive source can be buried in a load shielding the actual readings from the source; therefore, a load will be rejected. Non-raw materials nuisance alarms will be investigated and can be accepted if traces of radioactive material do not trigger danger levels. This procedure is outlined in our raw materials radiation protocol.**

Below is a listing of common materials known to have the potential to cause - nuisance alarms or that may contain traces of radioactive material. Contaminated Pipe - containing potash or oil that may carry radium or thorium radioactive materials.

- **Medical Alarms** – truck drivers or plant personnel that may be injected for medical treatments small traces of radioactive materials (i.e. barium enema)
- **Firebrick** – containing thorium.
- **Calamite** – containing traces of uranium, potassium, and thorium.
- **Concrete** – containing traces of potassium in significant volume.
- **Voids** – spacing between loads in a rail car or dump truck.
- **Other materials: Alum, Corrosive solids, ceramics, fire clay, pyro blocks, refractories, propane gas, insulation, bonding pour tile, fiberboards, ladle brick, oxytherm R1, fluidox 141, bonding mortar;** and materials that contain naturally occurring material (i.e. – granite rock, dirt, materials from phosphate mines).

## OTHER UNACCEPTABLE MATERIAL

**NO mill scale, slag, grinding dust or swarf.**

**NO asbestos** - typically in brake shoes, pipe insulation and hose insulation material.

**NO tires** (or tire pieces) of any type.

**NO free-flowing oil** (either on the surface of raw materials or containerized in the raw materials) undrained used oil filters, chlorinated plastics, and free organic liquids.

**NO units containing PCB's** of any type (this includes capacitors, transformers, ballast, etc.).

**NO batteries** of any type. This also includes Nickel Cadmium, Mercury, Lithium and other rechargeable batteries.

**NO items containing either regulated or non-regulated refrigerants** (i.e. charged refrigeration units or other units containing but not limited to the following refrigerants: of CFC's, HCFC'S, HFC's, ammonia, R600A, R134A, etc.)

**NO hazardous wastes** and no material containing hazardous wastes or hazardous waste residues.

**NO transformers.**

**NO materials with offensive odors** (mercaptan coated natural gas lines or propane lines/tanks).

**NO flammable material** (oil, grease, fuel, etc.).

**NO liquids of any type.**

**NO foreign materials/ non-metallics** (i.e. wood, insulation, concrete, dirt, plastic, etc.).

**NO electric motors**

**NO concrete**

**NO ammunition**

**NO capacitors**

## RAW MATERIALS SPECIFICATIONS

**GRADE:** Plate and Structural

**GRADE CODE:** 30006638

**DIMENSIONS:** 48" x 24" maximum  
 ¼" minimum thickness  
 4" maximum thickness

**MINIMUM DENSITY:** 50  
 (Lbs. per cubic ft.)



**MAXIMUM WEIGHT PER PIECE:** 95" - 200 lbs. or less  
 500 LB maximum – very important for Steel Florida

**DESCRIPTION:** Very dense, clean, new or obsolete steel plates (includes torch cut plate or skeleton plate), structural shapes or crop ends. Should be free of non-ferrous metals and other contaminants.

Heavy wall pipe and if over 8" o.d. must be split in half.  
 Please be sure to check all pipe for concrete

**MAY INCLUDE:** May include welded structural steel tubing.

<b>ELEMENT:</b>	Copper	.200
	Chrome	.120
	Nickel	.100
	Tin	.010
	Phosphorous	.030
	Sulfur	.030
	Silicon	.150
	Molybdenum	.020

**RESTRICTIONS:** **No** railcar sides.  
**No** cast-iron or steel castings.  
**No** rebar.  
**No** cut truck frames.  
**No** pressure vessel/boiler plates.  
**No** high pressure pipes.

## RAW MATERIALS SPECIFICATIONS

**GRADE:** Mixed #1 / #2 Heavy Melt

**GRADE CODE:** 30006594

**DIMENSIONS:** 48" x 24" maximum  
 ¼" minimum thickness  
 4" maximum thickness

**MINIMUM DENSITY:** 40  
 (Lbs. per cubic ft.)



**MAXIMUM WEIGHT PER PIECE:** 95" - 200 lbs. or less  
 500 LB maximum

**DESCRIPTION:** Clean, new or obsolete carbon steel scrap. Must conform to requirements of #2 steel grade with sufficient #1 steel (minimum 40%)

**MAY INCLUDE:** Also may include car rims.

<b>ELEMENT:</b>	Copper	to .4
	Chrome	to .25
	Nickel	.20
	Tin	.030
	Phosphorous	.03
	Sulfur	.05
	Silicon	.15
	Molybdenum	.040

**RESTRICTIONS:** **No** turnings  
**No** appliances  
**No** porcelain coated material  
**No** non-ferrous material (i.e. copper, aluminum, etc.).  
**No** wire coils or bundles.  
 5% max cast iron

## RAW MATERIALS SPECIFICATIONS

**GRADE:** #2 Heavy Melt

**GRADE CODE:** 30006586

**DIMENSIONS:** 48" x 24" maximum  
1/6" minimum thickness

**MINIMUM DENSITY:** 45  
(Lbs. per cubic ft.)

**MAXIMUM WEIGHT PER PIECE:** N/A



**DESCRIPTION:** Clean, new or obsolete carbon steel scrap. All properly prepared scrap stripped of non-ferrous and non-metallics, pipes less than 6" in diameter or light structural steel, thin gauged steel sheeting and thin gauged material 1/8 inch and over in thickness.

**MAY INCLUDE:** Also may include car rims. Rebar must not exceed 20% of the load.

<b>ELEMENT:</b>	Copper	.400
	Chrome	.25
	Nickel	.20
	Tin	.030
	Phosphorous	.030
	Sulfur	.05
	Silicon	.15
	Molybdenum	.040

**RESTRICTIONS:**

- No** turnings
- No** appliances
- No** porcelain coated material
- No** alloyed steel.
- No** non-ferrous material (i.e. copper, aluminum, etc.).
- No** wire coils or bundles.
- 5% max cast iron

## RAW MATERIALS SPECIFICATIONS

**GRADE:** #1 Shredded Scrap

**GRADE CODE:** 30006642

**DIMENSIONS:** N/A

**MINIMUM DENSITY:** 70  
(Lbs. per cubic ft.)



**MAXIMUM WEIGHT PER PIECE:** N/A

**DESCRIPTION:** Homogeneous iron and steel scrap, magnetically separated, originating from automobiles, unprepared No. 1 and No. 2 steel, miscellaneous baling and sheet scrap. Minimum density: 70 lbs per cu. ft. [Mercury switches must be removed prior to shredding pursuant to an EPA approved program (USA) or "Switch Out" (Canada). Outside Shredder primarily for using in wire heats.

**MAY INCLUDE:** N/A

<b>ELEMENT:</b>	Copper	.300
	Chrome	.100
	Nickel	.10 (wire)
	Tin	.010
	Phosphorous	.020
	Sulfur	.030 (wire)
	Silicon	.200
	Molybdenum	.030 (wire)

**RESTRICTIONS:**

- No** municipal scrap.
- No** tin cans.
- No** turnings or cast borings.
- No** fluff.

## RAW MATERIALS SPECIFICATIONS

**GRADE:** #2 Shredded Scrap

**GRADE CODE:** 30129222

**DIMENSIONS:** N/A

**MINIMUM DENSITY:** 70  
(Lbs. per cubic ft.)



**MAXIMUM WEIGHT PER PIECE:** N/A

**DESCRIPTION:** Homogeneous iron and steel scrap, magnetically separated, originating from automobiles, unprepared No. 1 and No. 2 steel, miscellaneous baling and sheet scrap. Minimum density: 70 lbs per cu. ft. [Mercury switches must be removed prior to shredding pursuant to an EPA approved program (USA) or "Switch Out" (Canada). Primarily for use on rebar heats.

**MAY INCLUDE:** N/A

<b>ELEMENT:</b>	Copper	.300
	Chrome	.100
	Nickel	.20
	Tin	.010
	Phosphorous	.020
	Sulfur	.050
	Silicon	.200
	Molybdenum	.040

**RESTRICTIONS:**

- No** municipal scrap.
- No** tin cans.
- No** turnings or cast borings.
- No** fluff.

## RAW MATERIALS SPECIFICATIONS

**GRADE:** Turnings  
**GRADE CODE:** 30006646

**DIMENSIONS:** N/A

**MINIMUM DENSITY:** 50  
 (Lbs. per cubic ft.)



**MAXIMUM WEIGHT PER PIECE:** N/A

**DESCRIPTION:** Clean short steel or wrought iron turnings, drillings or screw cuttings. May include any such material whether resulting from crushing, raking or other processes. Free of springy, bushy, tangled or matted material, lumps, iron borings, nonferrous metals in a free state, grindings, or organic liquids is acceptable.

**MAY INCLUDE:** N/A

<b>ELEMENT:</b>	Copper	.250
	Chrome	1.0
	Nickel	.5
	Tin	.010
	Phosphorous	.050
	Sulfur	.080
	Silicon	.150
	Molybdenum	.10

**RESTRICTIONS:**

- No** CAST IRON BORINGS.
- No** non-ferrous metals, mill scale, slag, grindings, swarf, or dirt.
- No** oxidized or oily turnings
- No** leaded or high sulfur turnings.

## RAW MATERIALS SPECIFICATIONS

**GRADE:** #1 Bundles

**GRADE CODE:** 30126435

**DIMENSIONS:** 24" x 24" x 36" maximum

**MINIMUM DENSITY:** 75  
(Lbs. per cubic ft.)

**MAXIUM WEIGHT PER PIECE:** N/A



**DESCRIPTION:** New black steel sheet scrap, clippings or skeleton scrap, compressed, to charging box size. May not include old auto body or fender stock. Free of metal coated, vitreous enameled, and electrical sheet containing over 0.5 percent silicon is acceptable.

**MAY INCLUDE:** May include skeleton reels, tightly secured.

<b>ELEMENT:</b>	Copper	.100
	Chrome	.050
	Nickel	.050
	Tin	.005
	Phosphorous	.010
	Sulfur	.010
	Silicon	.150
	Molybdenum	.015

**RESTRICTIONS:** **No** tin coated material.  
**No** high alloyed steel.

## RAW MATERIALS SPECIFICATIONS

**GRADE:** #2 Bundles  
**GRADE CODE:** 30006577  
**DIMENSIONS:** 24" x 24" x 36" maximum  
**MINIMUM DENSITY:** 50  
 (Lbs. per cubic ft.)  
**MAXIUM WEIGHT PER PIECE:** N/A



**DESCRIPTION:** Clean, new or obsolete scrap compressed into a small bundle. Sheet metal scrap, i.e. fenders, filing cabinets, industrial shelving, etc.

**MAY INCLUDE:** N/A

<b>ELEMENT:</b>	Copper	.400
	Chrome	.25
	Nickel	.20
	Tin	.030
	Phosphorous	.030
	Sulfur	.05
	Silicon	.15
	Molybdenum	.040

**RESTRICTIONS:**

- No** turnings.
- No** cast iron.
- No** porcelain coated material.
- No** alloyed steel.
- No** non-ferrous material (i.e. copper, aluminum, etc.).
- No** white goods.

Bundles must be free of insulation, plastics and non-ferrous

## RAW MATERIALS SPECIFICATIONS

**GRADE:** Prepared Cast

**GRADE CODE:** 30006631

**DIMENSIONS:** 36" x 24" x 6" maximum

**MINIMUM DENSITY:** 50  
(Lbs. per cubic ft.)

**MAXIUM WEIGHT PER PIECE:** 500 lbs. maximum



**DESCRIPTION:** Must be free of lead. Must have a minimum of 2.5 carbon.

**MAY INCLUDE:** May include all grades of clean cast iron except burnt iron.

<b>ELEMENT:</b>	Copper	.250
	Chrome	.10
	Nickel	.08
	Tin	.010
	Phosphorous	.040
	Sulfur	.010
	Silicon	.020
	Molybdenum	3.000

**RESTRICTIONS:**

- No** rebar.
- No** lead (pipe, counterweights, fire hydrants, etc.).
- No** concrete.
- No** aluminum Engine Blocks, large engine blocks must be broken to meet size spec.

## RAW MATERIALS SPECIFICATIONS

**GRADE:** Dealer Clips,  
Tin Plate Busheling

**GRADE CODE:** 30129221 & 30126430

**DIMENSIONS:** 36" x 18" maximum

**MINIMUM DENSITY:** 35  
(Lbs. per cubic ft.)



**MAXIUM WEIGHT PER PIECE:** N/A

**DESCRIPTION:** Tin plated sheet clips sized 4' maximum x 18" maximum. Must be no more than 25% tin bearing material. If more than 25%, cars must be special noticed and price negotiated.

**MAY INCLUDE:** N/A

<b>ELEMENT:</b>	Copper	.4
	Chrome	.25
	Nickel	.2
	Tin	.30
	Phosphorous	.03
	Sulfur	.05
	Molybdenum	0.04

**RESTRICTIONS:** N/A

## RAW MATERIALS SPECIFICATIONS

**GRADE:** Tire Wire  
**GRADE CODE:** 30126442

**DIMENSIONS:** Loose, minimal rubber content

**MINIMUM DENSITY:** 20  
 (Lbs. per cubic ft.)

**MAXIUM WEIGHT PER PIECE:** N/A

**DESCRIPTION:** Chopped. Less than two percent (<2%) rubber/fibre.

**MAY INCLUDE:** May include all grades of clean cast iron except burnt iron.

**ELEMENT:**

Copper	.4
Chrome	.25
Nickel	.2
Tin	.03
Phosphorous	.03
Sulfur	.05
Molybdenum	.04

**RESTRICTIONS:** **No** excessive rubber.  
**No** over oxidized material.



## RAW MATERIALS SPECIFICATIONS

**GRADE:** Pig Iron  
**GRADE CODE:** 30126436

**DIMENSIONS:** N/A

**MINIMUM DENSITY:** 150  
 (Lbs. per cubic ft.)



**MAXIUM WEIGHT PER PIECE:** N/A

**DESCRIPTION:** Unless otherwise specified, all grades shall be free of non-ferrous metals and non-metallic of any kind, including excessive dirt, loose turnings, cast iron, swarf, grinding dust, scale, oil, grease, excessive rust, terne plate, tin plate, detinned material, babbitt, resulfurized metal, stainless steel, chrome, and vitreous enamel coatings. 94% Fe minimum. 150 pounds per cu. ft. minimum density. **Cert for each load is required.**

**MAY INCLUDE:** N/A

**ELEMENT:** **need to look into S limit more**

Copper	0.020
Chrome	0.020
Nickel	0.010
Tin	0.002
Phosphorous	0.070
Sulfur	0.030
Molybdenum	0.001
Carbon	3.5-4.5
Manganese	1.0
Silicon	1.2

**RESTRICTIONS:** N/A

## RAW MATERIALS SPECIFICATIONS

**GRADE:** #1 Heavy Melt  
**GRADE CODE:** 30006585

**DIMENSIONS:** 48" x 24" maximum  
 ¼" minimum thickness  
 4" maximum thickness



**MINIMUM DENSITY:** 50  
 (Lbs. per cubic ft.)

**MAXIUM WEIGHT PER PIECE:** 95% - 200 lbs. or less  
 500 lbs. maximum

**DESCRIPTION:** Very dense, clean, new or obsolete carbon steel scrap. Railroad raw materials (wheels must be cut in half). Machine housings must be cut open and not to exceed 500 lbs. per piece. Heavy wall pipe (must be split if over 8" in diameter) and up to 20% of a load is acceptable.

**MAY INCLUDE:** N/A

<b>ELEMENT:</b>	Copper	0.4
	Chrome	0.25
	Nickel	0.2
	Tin	0.03
	Phosphorous	0.03
	Sulfur	0.05
	Silicon	0.25
	Molybdenum	0.04

**RESTRICTIONS:** 5% cast max.  
**No** rebar on #1 HM.  
**No** automobile scrap, (except crankshafts, and Heavy truck wheels/frames)  
**No** rail car sides under ¼".  
**No** crimped or un-crimped car rims.

## RAW MATERIALS QUALITY/INSPECTION POLICY AND PROCEDURES

Raw material quality is the key to the success of CMC Steel Florida, and therefore, maintaining strict control standards is a priority. We clearly understand that a raw material by its nature, is a unique commodity, and will work with all of our suppliers to ensure our standards are fair and equitable.

To complement our Raw materials Specification Manual, which will be provided to all suppliers, we have implemented the following:

### **Scrap Inspection:**

1. 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.
  - a. Scrap inspection will be required also to determine whether there is an obvious presence of free organic liquids, chlorinated plastics, or lead-containing components. Records of scrap inspections will be maintained on site for two years. Scrap inspection records shall include the identity of the scrap provider for any load that fails visual inspection. Foreign materials will be removed to the extent practicable prior to charging to the furnace, and the scrap supplier will be subject to corrective action.
  - b. Turnings, borings, and other forms of scrap that were generated as a result of the processing of metal with use of cutting, lubricating or cooling fluids will be visually inspected prior to charging to the furnace to ensure that such scrap does not contain free organic liquids.
  - c. Scrap that has been processed through a shredder that utilizes magnetic or density separation techniques to separate ferrous and non-ferrous materials will be presumed to be depleted scrap of chlorinated plastics and lead to the extent practicable.
  - d. CMC will conduct a review of the End of Life Vehicle Solutions (ELVS) database to confirm that the motor vehicle scrap provider is enlisted as a participating member in the National Vehicle Mercury Switch Removal Program (NVMSRP).

Semi-annual review of the ELVS database will also be conducted to confirm that the scrap provider remains identified as an NVMSRP participant. If CMC reasonably believes, either as a result of inspection, site visits, or review of the ELVS database or by other means, that a scrap supplier is not taking appropriate steps to minimize the presence of mercury switches in scrap from end-of-life vehicles, the facility shall: see statement 4 –5a.

**Failure to Meet Standards:**

2. Any loads failing to meet our standards, as outlined, will be rejected. If the load is acceptable scrap but does not match the intended purchased grade, it will be at the discretion of CMC Steel Florida whether to accept the load as a downgrade or to reject the load. If CMC Steel Florida chooses to downgrade the load then the supplier must determine whether to return the load or accept the downgraded price.
3. For each load rejected or downgraded, CMC Steel Florida Raw Materials Inspectors will notify the Raw Materials Department for discussion with the Supplier. All discussions with Suppliers will be through the Raw Materials Department.

**Failure to Get it Right:**

4. Ongoing rejections and downgrades are costly and inefficient for both suppliers and CMC Steel Florida. To control the quality of our raw materials and to be consistent with our suppliers, we have developed the CMC Steel Florida Raw Materials Specification Manual along with the following criteria for remaining an approved supplier.
5. Recommendation to disqualify a supplier will be based on serious or repeated rejections and the results of audits and/or poor order completion. The number of warnings and rejections that will result in disqualification of a vendor depends on the amount of raw materials supplied and the seriousness of the incident(s).
  - a. If repeated quality or environmental violations, the supplier will be asked to meet/discuss with the Raw Material Department and/or the Melt Shop Management of CMC Steel Florida with a an outline (either verbal or written) for corrective action including internal control standards necessary to meet CMC Steel Florida's Raw material Specifications and corrective action steps.



## SCRAP MANAGEMENT PLAN, SAFETY AND ENVIRONMENTAL COMPLIANCE AND AGREEMENT

The undersigned Seller has read CMC Steel Florida's Raw Materials Specification. This includes General Terms and Conditions, Environmental Issues including restrictions of raw materials containing free organic liquids, chlorinated plastics, lead and lead containing components, and mercury switches Closed Containers/Sealed Units, Radioactive Raw Materials, Other Unacceptable Material and Raw Materials Specifications.

Seller acknowledges that CMC Steel Florida may not accept any shipment in whole or in part that does not meet the conditions and specifications described in the specification document. Seller also acknowledges that vendors found to violate this Agreement may be disqualified from supplying scrap materials to CMC Steel Florida.

Although CMC Steel Florida will exercise reasonable effort to inspect scrap shipments, materials supplied can contain constituents not readily detected during normal inspection, which expose the company to hazards associated with use. Such constituents may include, for example, sealed containers, radiation sources, hazardous volatiles, free organic liquids, chlorinated plastics, lead and lead-containing components, mercury from motor vehicle switches, etc. In all cases, CMC Steel Florida'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 people or property.

I, the undersigned Seller, or authorized representative of Seller, do hereby acknowledge receipt and understanding of the aforementioned specifications and conditions.

**Seller's Name:** \_\_\_\_\_

**Company Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**City/State/Zip:** \_\_\_\_\_

**Phone:** \_\_\_\_\_ **Fax:** \_\_\_\_\_

**E-Mail:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Title:** \_\_\_\_\_

### Radiation Detection Equipment

**Model#: Hand Held:** \_\_\_\_\_ **Truck** \_\_\_\_\_ **Rail** \_\_\_\_\_

## Critical Driver Safety Rules for Melt Shop Scrap Area and DAMAGE Waiver

- A. CMC will not tolerate arguing or harassing guards or employees, make sure to show ALL PPE at guard house.
- B. Seat belts are always to be worn while on property, **including while dumping**
- C. Cab of truck must be straight with trailer before load is dumped.
- D. Once load is dumped the bed must be lowered all the way down before the truck is pulled forward.
- E. **NEVER** exit the cab of the truck with the bed in the air.
- F. Pull off the Scrap Pad to close the trailer gate.
- G. **NEVER** climb into trailer bed.
- H. **NEVER** cross under bed of trailer
- I. If you suspect scrap is “hung up” in the trailer follow the steps below, but **NEVER** accelerate with the bed in the air and hit the brakes quickly to dislodge scrap.
  - 1. Lower the trailer.
  - 2. Check trailer for scrap, but **NEVER** climb into or onto the trailer.
  - 3. If there is scrap, pull around to scrap inspector and let him know, he will call a crane to help unload you after you sign a damage waiver.
- J. All Personal Protective Equipment **MUST** always be worn, this includes: Hard Hat, Safety Glasses, Closed Toed Shoes, Long Pants and Reflective Safety Vest.
- K. The maximum speed limit for entrance road 15 mph once past the scales the maximum speed is 5 mph.
- L. Drivers **MUST** follow all written and verbal instructions from the Scrap Inspector and/or Mobile Equipment Operators. If there is nobody at the inspection stand drivers must wait at the inspection stand until someone tells them where to go or waves them over to a piece of mobile equipment for inspection and instructions.
- M. Drivers **MUST** come to a **COMPLETE** stop at all stop signs on the property.
- N. Drivers **MUST STOP** and check **ALL** railroad crossing before proceeding, even if an “all clear” is given by the locomotive operator.
- O. Drivers **MUST** always yield to all pedestrians and mobile equipment

- P. Flatbed drivers **MUST** remain in the cab of truck while mobile crane s unloading.
- Q. Flatbed drivers **MUST** sign a damage waiver before being unloaded.

CMC employees have the right to stop, remove or refuse to unload anyone engaged in unsafe behaviors/acts. CMC will not be responsible for damage to truck or trailer.

**Failure to follow the Critical Driver Safety Rules for the Scrap Area will result in the following.**

1. First offense verbal warning issued to driver.
2. Second offense written warning issued to driver and sent to trucking company and scrap supplier.
3. Third offense would be one-month suspension from delivering scrap to mill.
4. Fourth offense driver would be permanently banned from delivering scrap to mill.