

CMC Steel Tennessee Scrap Specifications Manual

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Scrap Raw Materials Specification Manual

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Introduction

CMC Steel Tennessee wishes to consistently provide the best quality steel on the market. 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 Tennessee'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 Tennessee 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 Tennessee's particular raw materials requirements.

General Terms and Conditions

- PURCHASING OF RAW MATERIALS is handled by the Raw Materials Department.
 Raw Materials Department may be contacted at 865.867.7268 or at 865.809.7778.
- 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 Tennessee 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 Tennessee's weights and grading will govern final settlement for all raw materials purchases. A current CMC Steel Tennessee purchase order must be on file for each shipment. No raw materials will be received at the scale unless:
 - 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
- In the case of rail shipment, the shipper must notify CMC Steel Tennessee's Raw materials Department prior to the arrival of the car at CMC Steel Tennessee.
- 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 Tennessee's grading will govern settlement.
- 5. The Scale Administrator on duty is responsible for inspecting the top of every raw materials shipment and determining if it conforms to the shipper's statement as to what grade was shipped. 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 Tennessee. 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 Tennessee's RAW MATERIALS SPECIFICATION MANUAL.
- 7. Disputes over substandard material, contracts, grading, unloading, etc., on raw materials delivered after normal business hours (5:00am to 3:30 pm, 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.

- 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.
- 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 Tennessee. Only the driver will be allowed into the raw materials storage area. The driver must have and use approved head and eye protection (hard hat, safety glasses) at all times while within the CMC Tennessee scrap yard area. Shorts, sleeveless shirts and open toed shoes are not permitted at CMC Steel Tennessee. The driver must not leave the immediate area surrounding his truck, and must stay clear of the crane unloading his truck as well as other equipment operating in the area. The driver's strict attention to his surroundings is mandatory.
- 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 <u>negligible</u> amounts where it can be shown that the amount is unavoidable in the customary preparation and handling of the particular grade involved. CMC Steel Tennessee 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 <u>negligible</u> amount of metallic material which exceeds to a <u>minor</u> 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 Tennessee 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 Tennessee Raw Materials Department and the supplier.

Environmental Aspects

Part of CMC Steel Tennessee'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 Tennessee 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 865.867.7217; with the Raw materials Department advised of the final resolution by the CMC Steel Tennessee's Environmental Department.

Hazardous Air Pollutants (HAP) Emissions: Contaminants such as chlorinated plastics, organic liquids, lead and mercury are unacceptable and any load containing these materials will be rejected.

EPA has identified EAF facilities as potential sources of HAP emissions and on December 28, 2007 promulgated final regulations 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 Tennessee is committed to complying with the requirements of the EAF Area Source Rule and to the goal of removing 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 Tennessee 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 materials must be depleted of undrained used oil filters, chlorinated plastics, and free flowing organic liquids at the time of being received at the mill. Lead-containing components, such as batteries, battery cables, and wheel weights, must be removed, prior to being received at the mill.

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 are 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 Tennessee.

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 <u>ANY</u> "CLOSED CONTAINERS" WILL BE REJECTED.





PLEASE PAY STRICT ATTENTION TO THIS ISSUE.

Radioactive Raw Materials

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

CMC Steel Tennessee 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 Tennessee until the supplier demonstrates that efforts have been made to correct the problem. In addition, CMC Steel Tennessee 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 scrap metal that sets off the radiation detector must be reported to the Tennessee Department of Health and Environmental Control (TDHEC) 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 at 865.867.7217.

The Tennessee Department of Health and Environmental Control will be notified prior to returning any load to the supplier.

Potential Radiation Alarms

CMC Steel Tennessee has a policy prohibiting the acceptance of any type of Scrap metal that causes the radiation detector to alarm, however in the event of weather related alarms the vehicle will be parked to the side and ample time given for the vehicle to clear the detector without an alarm, if it clears it will be accepted. Weather related 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, if the load does not clear the detector it will be rejected.

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 of any type.
- NO oil of any type
- **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)
- NO items containing freon (i.e. charged AC units or other type of CFC's.
- NO other types of refrigerants (e.g. ammonia).
- NO hazardous wastes or hazardous waste residues.
- NO transformers.
- NO 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

GRADE:	Plate and Structural		
GRADE CODE:	N/A		
DIMENSIONS:	48" x 18" maximum ¼" minimum thickness 4" maximum thickness		
MINIMUM DENSITY: (Lbs. per cubic ft.)	55		
MAXIUM WEIGHT PER PIECE:	95" - 200 lbs. or less 500 LB maximum		
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.		
RESTRICTIONS :	No railcar sides. No cast-iron or steel castings. No rebar.		
NOTE:	No more than 20% of a load should be light structural		
steel.	Angles- must be 2"x 2" or greater, and ¼" or greater in thickness. Flats – must be 2" or greater, and ¼" or greater in thickness. Rounds - must be 2" or greater, and ¼" or greater in thickness.		

GRADE:	#1 Heavy Melt
GRADE CODE:	N/A
DIMENSIONS	48" x 18" maximum ¼" minimum thickness 4" maximum thickness
MINIMUM DENSITY: (Lbs. per cubic ft.)	50
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 (<u>must be split if over</u> <u>8" in diameter</u>) and up to 20% of a load is acceptable.
MAY INCLUDE:	N/A
RESTRICTIONS:	No rebar. No cast. No automobile scrap, (except crankshafts and Heavy truck wheels/frames). No rail car sides under ¼". No crimped or un-crimped car rims. No highly alloyed steel.

GRADE:	Mixed #1 / #2 Heavy Melt		
GRADE CODE:	N/A		
DIMENSIONS:	48" x 18" maximum 1/8" minimum thickness		
MINIMUM DENSITY: (Lbs. per cubic ft.)	40		
MAXIUM WEIGHT PER PIECE:	N/A		
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.		
RESTRICTIONS :	No turnings. No appliances. No porcelain coated materials. No alloyed steel. No non-ferrous material (i.e. copper, aluminum, etc.) No wire coils or bundles.		

GRADE:	#2 Heavy Melt		
GRADE CODE:	N/A		
DIMENSIONS :	48" x 18" maximum 1/16" minimum thickness		
MINIMUM DENSITY: (Lbs. per cubic ft.)	35		
MAXIUM WEIGHT PER PIECE:	N/A		
DESCRIPTION:	Clean, new or obsolete carbon steel scrap. All properly prepared scrap <u>stripped of non-ferrous and non-</u> <u>metallics</u> , pipes less than 6" in diameter or light structural steel, thin gauged steel sheeting and thin gauged material. Rebar must not exceed 10% of the load.		
MAY INCLUDE:	Also may include car rims.		
RESTRICTIONS :	No turnings. No porcelain coated material. No alloyed steel. No non-ferrous material (i.e. copper, aluminum, etc.) No tangled rebar. No wire coils or bundles.		

GRADE:	Shredded Scrap
GRADE CODE:	N/A
DIMENSIONS:	N/A
MINIMUM DENSITY: (Lbs. per cubic ft.)	70
MAXIUM WEIGHT PER PIECE:	N/A
DESCRIPTION:	Extremely dense, clean, homogenous iron and steel scrap, magnetically separated originating from automobiles, unprepared #1 and #2 steel and miscellaneous baling and sheet scrap, essentially free of non-metallic and non-ferrous material.
MAY INCLUDE:	N/A
RESTRICTIONS :	No municipal scrap. No tin cans. No turnings or cast borings. No fluff.

GRADE:	Mixed Turnings
GRADE CODE:	N/A
DIMENSIONS:	N/A
MINIMUM DENSITY: (Lbs. per cubic ft.)	50
MAXIUM WEIGHT PER PIECE:	N/A
DESCRIPTION:	Clean, dense steel turnings from fresh production. May not be springy, bushy, tangled or matted . No long, stringy pieces.
MAY INCLUDE:	N/A
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.

GRADE:	Cast Iron Borings		
GRADE CODE:	N/A		
DIMENSIONS:	N/A		
MINIMUM DENSITY: (Lbs. per cubic ft.)	N/A		
MAXIUM WEIGHT PER PIECE:	N/A		
DESCRIPTION:	Fresh production; originating from the machining of cast iron and must be free-flowing.		
MAY INCLUDE:	N/A		
RESTRICTIONS :	Free of any other material. <mark>No</mark> oxidized material.		

GRADE:	Busheling
GRADE CODE:	N/A
DIMENSIONS:	48" x 18" maximum ¼" maximum thickness
MINIMUM DENSITY: (Lbs. per cubic ft.)	50
MAXIUM WEIGHT PER PIECE:	N/A
DESCRIPTION:	Clean, new production steel scrap including sheet clippings, stampings, etc.
MAY INCLUDE:	N/A
RESTRICTIONS :	No Tin Plate material. Free of metal coated, vitreous enameled and electrical sheet. Must be alloy free.

GRADE:	#1 Bundles
GRADE CODE:	N/A
DIMENSIONS : Other sizes may be con	24" x 24" x 32" sidered on a case
by case basis	
MINIMUM DENSITY: (Lbs. per cubic ft.)	70
MAXIUM WEIGHT PER PIECE:	N/A
DESCRIPTION:	New steel sheet scrap, clippings or skeleton scrap compressed into a <u>small</u> bundle.
MAY INCLUDE:	N/A
RESTRICTIONS :	No coated material. Must be alloy free.

GRADE:	#2 Bundles
GRADE CODE:	N/A
DIMENSIONS:	24" x 24" x 32"
MINIMUM DENSITY: (Lbs. per cubic ft.)	70
MAXIUM WEIGHT PER PIECE:	N/A
DESCRIPTION	Clean, new or obsolete scrap compressed into a <u>small</u> bundle. Sheet metal scrap, i.e. fenders, filing cabinets, industrial shelving, etc.
MAY INCLUDE:	N/A
RESTRICTIONS :	No turnings. 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 Quality/Inspection Policy and Procedures

Raw material quality is the key to the success of CMC Steel Tennessee, 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:

- 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 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 flowing 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 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.

Failing 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 Tennessee whether to accept the load as a downgrade or to reject the load. If CMC Steel Tennessee chooses to downgrade the load, then the supplier must determine whether to return the load or accept the downgraded price.
- For each load rejected or downgraded, CMC Steel Tennessee 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 Tennessee. To control the quality of our raw materials and to be consistent with our suppliers, we have developed the CMC Steel Tennessee 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 Tennessee with an outline (either verbal or written) for corrective action including internal control standards necessary to meet CMC Steel Tennessee's Raw Material Specifications and corrective action steps.



Scrap Management Plan, Safety And Environmental Compliance and Agreement

The undersigned Seller has read CMC Steel Tennessee'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 Tennessee 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 Tennessee.

Although CMC Steel Tennessee 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 Tennessee'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:			
E-Mail:			
Signature:			
Title:			
Radiation Detection Equipment			
Model#: Hand Held:	_ Truck	Rail	