



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

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February 1, 2006

MEMORANDUM TO: Division Engineers

FROM: C. L. Jones, P.E. *Cecil L. Jones*
State Materials Engineer

SUBJECT: Cast Iron Quality Control/Quality Assurance Program

The Materials and Tests Unit in cooperation with the cast iron foundries have instituted a Quality Control/Quality Assurance Program for gray iron castings. Without going into the details of the program, the foundries are now responsible for most of the inspection (Quality Control) of the cast iron grates, frames, hoods, and manhole rings and covers detailed in our *Roadway Standard Drawings*. Materials and Tests Unit personnel will perform spot inspections (Quality Assurance) of each foundry's castings, both at the sales yards here in North Carolina and at the out-of-state foundries.

The only real change that will be seen in the field by the Resident Engineer's personnel and maintenance and inventory personnel is the paint stamp indicating the castings are acceptable for use. Currently there are only two companies supplying castings for NC DOT work, U.S. Foundry and East Jordan Ironworks. Each company has its own paint stamp indicating the casting has passed their quality control procedures. If a casting has one of these stamps on it, it is acceptable for use on NC DOT work. Attachment #1 shows an example of each company's approval paint stamp. It should be noted that East Jordan Ironworks has three individual foundries, but they all will use the same QC approval paint stamp.

There is no change in how iron castings are received in HiCAMS. They will still be received as "Individual Casting Components" by lot number. Attachment #2 shows the proper format to enter iron castings into HiCAMS.

As is the case with any material, whether it is pre-approved or not, if any problem is found by field personnel, the material can be rejected at any time. Materials & Tests Unit personnel can be contacted if any questions arise or any assistance is needed.

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If you have any questions concerning the Cast Iron Quality Control/Quality Assurance Program, please contact Steve Walton at (336) 993-2300 (swalton@dot.state.nc.us) or David Greene at (919) 733-7091 (dgreene@dot.state.nc.us).

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CLJ/cdg

Cast Iron Foundries QC Approval Stamps



U. S. Foundry - (CI2)



East Jordan Ironworks - (CI3, CI5, & CI10)

Alternate ID's for Gray Iron Castings

Castings will have either "Made in USA" or "USA" cast in them. In addition, they will have a date cast in them. This date, along with the foundry ID number is the alternate ID to be entered into HiCAMS. The alternate ID type will be "Lot Number" and should be entered in the following format:

CIX-MMDDYYYY

Where: **CIX** - is the ID of the foundry that cast the iron - (Note: This may not be the supplier.)

MM - is the month cast into the casting

DD - is the day of the month cast into the casting

YYYY - is the year cast into the casting - (Note: Only two digits may be on the casting but HiCAMS requires the four-digit year format.)

Foundry ID's are as follows: **CI2** - US Foundry & Mfg. Corp. - (Miami, FL)

CI3 - East Jordan Ironworks, Inc. - (Denham Springs, LA)

CI5 - East Jordan Ironworks, Inc. - (East Jordan, MI)

CI10 - East Jordan Ironworks, Inc. - (Ardmore, OK)