

EPOXY COATED REINFORCING REVIEW GUIDELINES

State: _____

Date: _____

Review Participants: _____

Project Information: _____

Name/Address of applicator and fabricator: _____

Attach a copy of your State's current specifications.

I. COATING MATERIALS

- A. What are the prequalification requirements (if any) for the coating material?
- B. Who approves the coating material and how is this documented? Is the material approved prior to its use?
- C. Has the patching material been tested and approved? Is it approved prior to use?
- D. Is a written certification required for each batch of coating material certifying that the material is the same as that prequalified? (Required by AASHTO M284)
- E. Does the State perform independent testing of the coating material to verify its composition?

II. COATING APPLICATOR SHOP

- A. Comment on the cleanliness of the reinforcing steel prior to coating. (Cleanliness can be observed by wiping a hand or cloth across a few bars after the blasting operation.)
- B. What is the time period between blasting and coating?
- C. What is the required thermal cure time? Does the production line speed allow for the proper cure time prior to quenching?
- D. After curing are coated bars free from holes, voids, contamination, cracks, and damaged areas detectable with the unaided eye? If not, what happens to them?
- E. Shop Inspection / Testing:
1. Describe the State's inspection practices at the shop.
 2. Are periodic random bar samples taken for testing and evaluation of chemical and physical properties? Are the samples checked for cleanliness?
 3. Describe the testing performed at the shop for each of the following. Include a discussion of equipment and methods used, specification limits, and frequency.
Heat:
Holidays: (less than 2/ft)
Film Thickness: (ASTM D3963 requires 90% of film thickness measurements to be between 7 and 12 mils after curing. AASHTO M284 requires 90% between 8 and 12 mils after cure.)
Adhesion:
 4. Describe the shop's quality control practices.
- F. Are padded bundling bars or nylon straps used during

handling of the coated bars?

- G. Are bundled bars moved in such a way as to prevent bar-to-bar abrasion due to sagging?
- H. Are coated bars stored above the ground on wooden or padded supports? If coated bars are stored outside, are they covered?
- I. Do the specifications include time limitations on length of outdoor storage? If so, what are they? (a limit of 3 months total time is recommended)
- J. Describe how the bar identification is maintained throughout the coating process.
- K. Describe the criteria used to determine the need for repairs in the shop.
- L. Is there a minimum and/or maximum thickness of coating specified for repair areas? If yes, what is it?
- M. Is there a limit on the amount of bar surface area that can be covered by patching material and, if so, what is it?
- N. At the time of shipment, does the State require certification from the coater that the bars were cleaned, coated, and tested in accordance with the specifications?
- O. Do the specifications require that bending of bars be performed prior to coating?
- P. Is the plant certified under the CRSI Epoxy Coating Applicator Plant Certification Program? If so, check on how the plant is following their certification.

III. FABRICATION SHOP

- A. Describe the shop's quality control practices.
- B. Describe the State's inspection practices.
- C. Are padded bundling bars or nylon straps used during handling of the coated bars?
- D. Are bundled bars moved in such a way as to prevent bar-to-bar abrasion due to sagging?
- E. Are drive rolls on shear beds and back-up barrels on benders protected with a suitable cover to minimize

damage during fabrication?

- F. Are coated bars stored above the ground on wooden or padded supports? If coated bars are stored outside, are they covered?
- G. Describe how the bar identification is maintained throughout the fabrication process.
- H. Describe the criteria used to determine the need for repairs in the shop.
- I. Do the specifications prohibit welding of coated bars?
- J. How are the bars cut? (should not be burned unless fully repaired)
- K. How is the epoxy coating repaired after the bars are cut?

IV. PROJECT SITE

- A. Describe the State's inspection practices at the project site.
- B. Are padded bundling bars or nylon straps used during handling of the coated bars?
- C. Are bundled bars moved in such a way as to prevent bar-to-bar abrasion due to sagging?
- D. Are coated bars stored above the ground on wooden or padded supports? If coated bars are stored outside, are they covered?
- E. Do the specifications include time limitations on length of outdoor storage? If so, what are they?
- F. Describe the criteria used to determine the need for repairs in the field.
- G. Do the specifications require the use of coated tie wire and supports? If so, what is the minimum thickness of coating required?
- H. Is there a limit on the amount of bar surface area that can be covered by patching material and, if so, what is it?