



Bureau of Materials Materials Approval Procedures

MAP Number: **126-15**

Effective Date: April 1, 2015

Approved By: Eileen Sheehy

PROCEDURE FOR APPROVAL OF FIBERGLASS REINFORCED PLASTIC LUMBER (FRPL)

PURPOSE:

To establish a procedure to approve FRPL for addition to the NJDOT Bureau of Material's Qualified Products List (QPL).

REFERENCES:

New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction
Section 916.01
NJDOT Bridges and Structures Design Manual

PROCEDURE:

A. Manufacturer's Request for Approval.

The manufacturer shall request in writing the approval of the FRPL material. Include the following information in the request:

1. The name, address, and contact information for the manufacturer.
2. The name or designation of the FRPL material that is to be evaluated.
3. Written certification from the FRPL manufacturer that their product satisfies the requirements in Section 916.01.
4. Catalog cuts, manufacturer's recommendations for design and construction, listing of available sizes, diagrams, performance charts, and other characteristics of FRPL to document conformance to criteria specified in Section 916.01.
5. Test reports of the plastic material properties and reinforcement properties to document conformance to criteria specified in Section 916.01.
6. Lab reports from an independent testing facility including calculations that confirm that the FRPL meets the structural properties specified in Section 916.01. A minimum of 3 flexural tests must be reported.
7. A list of at least five bridge protection projects in the USA that are at least three years old and that have used the FRPL. For each of the projects, list the project owner, the project name, location, contact name and phone number, and the date of installation of the FRPL.

Mail the request for approval to the following:

Mailing Address (USPS):

Manager, Bureau of Materials (Thiokol Bldg. 4)
New Jersey Department of Transportation
P.O. Box 600
Trenton, NJ 08625-0600

Street Address (UPS, FedEx, etc.):

Manager, Bureau of Materials (Thiokol Bldg. 4)
New Jersey Department of Transportation
930 Lower Ferry Road
West Trenton, NJ 08628

B. Bureau of Structural Engineering Review.

The Bureau of Structural Engineering will review the manufacturer's submittal for completeness. If the submittal is incomplete, it will be rejected. The Bureau of Structural Engineering will review the submittal to verify that it meets Section 916.01 requirements and NJDOT design parameters. The Bureau of Structural Engineering will make the final determination on the approval of the FRPL for addition to the QPL.

PROJECT ACCEPTANCE REQUIREMENTS:

Qualification of the FRPL material and its addition to the QPL does not constitute a blanket approval. On a project to project basis, the use of the FRPL shall be submitted for approval according to the Working Drawing procedures of the NJDOT Standard Specifications.

DISQUALIFICATION:

The ME may remove a FRPL listing from the QPL for non-conformance with design and construction specification requirements or for a documented history of poor field performance. The manufacturer shall notify the ME, in writing, of any change in product formulation or design. Failure to notify the ME of changes in product formulation will result in disqualification.

REQUALIFICATION:

The ME will reevaluate a product which has been disqualified and removed from the QPL only after submission of a formal request along with acceptable evidence that the problems causing the disqualification have been resolved.

The ME may require the manufacturer to requalify the product for any of the following reasons:

1. To ensure that obsolete FRPL listings are not kept on the list, the ME may request written confirmation from the manufacturer that the material is still available and has not changed formulation or design. Failure to respond to the Bureau's written request will result in the product being removed from the list.
2. If the formulation or design of the material has changed, the ME may require that the new product be requalified.
3. If the NJDOT Standard Specifications or NJDOT Bridges and Structures Design Manual change or if any referenced ASTM or AASHTO specifications change, the ME may require requalification to ensure that the product meets new criteria.