

QPL 29 FLASHING ARROW PANNELS/ARROW BOARDS

FLASHING ARROW PANNELS/ARROW BOARDS

PROCEDURES

GENERAL

This procedure outlines the Department's approval process for the use of Flashing Arrow Panels/Arrow boards used to provide additional warning and directional information to assist in merging and controlling road users through or around a temporary traffic control zone.

SPECIFICATIONS

Manual on Uniform Traffic Control Devices (MUTCD)

EVALUATION PROCEDURES

A completed Product Evaluation Form, MSDS sheets, if applicable and product data information must be submitted to the Division of Materials and Tests.

The Tennessee Department of Transportation utilizes National Transportation Product Evaluation Program data for approval of Flashing Arrow Panels/Arrow Boards. All units shall have completed a full evaluation cycle (1-year) by the NTPEP. Upon conclusion of the full evaluation cycle, the prospective producer or vendor must provide complete data on the unit evaluated from the test decks to the Division of Materials and Tests. All units meeting the following minimum requirements based on NTPEP data will be placed on the Department's Qualified Products List:

- 1) In the operating mode the unit shall be capable of performing all of the following displays:
 - a) either flashing arrow, sequential arrow or sequential chevron.
 - b) flashing double arrow.
 - c) Flashing caution.
- 2) All elements shall be yellow. Minimum number of elements and size of sign panel shall be as follows:
 - a) Type B – 13 elements, 60" x 30" sign panel.
 - b) Type C – 15 elements, 96" x 48" sign panel
- 3) Minimum visibility and legibility distances shall be as follows for both day and night tests during both winter and summer seasons:
 - a) Type B – visibility 3960 feet, legibility 2500 feet.
 - b) Type C – visibility 5280 feet, legibility 3000 feet.
- 4) The unit must have a primary and backup power source.

LIST 29: FLASHING ARROW PANNELS/ARROW BOARDS (CONTINUED)

EVALUATION PROCEDURES (CONTINUED)

- 5) The unit must pass the NTPEP durability test.
- 6) The unit must be capable of adjusting it's brightness from daylight to night time conditions.
- 7) The unit must have a minimum reliability from it's primary power supply for a minimum of 20 days for solar units (24 hours for diesel units) for both the winter and summer tests. Gasoline powered units are not allowed.

In addition to the above, Type C Arrow Panels/Arrow Boards must include mounting and transporting equipment (trailer mounted with all applicable lights and hardware).

If the product meets all of the above requirements, it will be approved and added to the Department's Qualified Products List. The Department reserves the right to reject any product, which does not demonstrate satisfactory performance in any of the above tests. The Department also reserves the right to remove any product from the Qualified Products List that does not perform satisfactorily under real life traffic conditions.

NOTE: This procedure is considered tentative until approval by the Department's Specification Committee. Until sometime in the future to be determined to add products solely based on NTPEP evaluation, the Department will maintain this Qualified Products List based on this procedure and the current procedure of a one month evaluation of the unit by the Materials and Test Division. Products meeting approval under either evaluation procedure will be added to the QPL.