

PENNDOT e-Notification



Bureau of Design
Bridge Quality Assurance Division

PAPIER

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Water Loads Not Being Applied to Extreme-I and Extreme-II Limit States

An issue has been recently identified in which, contrary to statements made in the user's manual, water loads (stream flow and buoyancy) are **not** being included in the Extreme-I and Extreme-II limit states for a LRFD analysis.

The question has been raised as to the water levels that must be considered acting concurrent with the extreme event loadings. For example, should stream flow and buoyancy forces associated with high water level (typically the 100-year event) be applied concurrently with earthquake loads? Past experience has been to evaluate extreme event loadings with all possible water level combinations.

WORK-AROUND

There is no practical work-around for Version 1.1. Until the next release of the program is distributed, input files can be e-mailed to destefa@dot.state.pa.us and the output results using the corrected development version will be e-mailed back.

FUTURE CORRECTIVE ACTION

The fix for this error has already been made to the development version of the next release. The implementation will be that there is no restriction regarding the water level used concurrent with the extreme event loadings. If the user deems applicability of a particular water level is not valid when combined with the extreme event loadings, then multiple PAPIER runs will be required.

Direct any questions concerning the above issues to:

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For additional information, please visit the PENNDOT LRFD and Engineering Programs support website at <http://penndot.engrprograms.com>.