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VII. RECOMMENDATIONS

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The Safety Board recommends that:

1. The Secretary of Transportation expand existing research programs or institute new research programs to:
 - a. Identify bridge building materials susceptible to slow flaw growth by any of the suspected mechanisms;
 - b. Determine critical flaw size under various stress levels in bridge building materials;
 - c. Develop inspection equipment capable of detecting critical or near critical flaws in standing bridge structures;
 - d. Devise analytical procedures to identify critical locations in bridge structures which require detailed inspection;
 - e. Develop standards which incorporate appropriate safeguards in the design and fabrication of future bridges to ensure protection against failures of material such as occurred in the Point Pleasant Bridge;
 - f. Develop standards for the qualification of materials for future bridge structures, using the information disclosed in this investigation;
 - g. Devise techniques for repair, protection, or salvage of bridges damaged by internal flaws; and
 - h. Expand the knowledge of loading history and life expectancy of bridges.
2. The Secretary of Transportation explore the alternatives for action to assure mandatory application of the bridge safety requirements of the 1968 Federal-Aid-Highway Act to all highway bridges in the United States, since the majority of older bridges in the country are not in the Federal-Aid-Highway System and these bridges are most susceptible to extensive repair or replacement; including such alternative courses of

action as urging the adoption by the States of mandatory standards, or the enactment of Federal legislation applicable to all highway bridges.

3. The Secretary of Transportation consider the advisability of proposing a program of Federal aid to ensure the adequate repair of all bridges not in the Federal-Aid-System.

BY THE NATIONAL TRANSPORTATION SAFETY BOARD:

/s/ JOHN H. REED
Chairman

/s/ OSCAR M. LAUREL
Member

/s/ FRANCIS H. McADAMS
Member

/s/ LOUIS M. THAYER
Member

/s/ ISABEL A. BURGESS
Member

Adopted: December 16, 1970