

No. NHVI-50 (3)/83-Part

*Dated the 15th April, 1983*

To

All Chief Engineers/Principal Engineers of State PWDs/Union Territories dealing with National Highways

Sub : Safety measures dealing with excavation and blasting operations

A number of cases involving accidents including fatal ones during excavation operations in foundations for bridge structures have come to the notice of this Ministry.

2. In the case of minor bridge under construction on a National Highway a few years back, when the excavation work for open foundation was in progress and some labourers were inside the pit, the sides of the foundation trench caved in trapping several labourers inside and burying them alive resulting in loss of several lives. Consequently work was suspended for a considerable time which resulted in time over-run in the completion of the bridge and the consequent cost over-run due to price escalation.

3. Recently, in the case of a major bridge on a National Highway where blasting operations were resorted to for excavation in foundation, one labourer was killed and two others were seriously injured at the work site. This happened because one of the charges remained unblasted and went unnoticed with the result that after two days when labourers were working on the work site the unblasted charge exploded suddenly by itself resulting in the said accident.

4. Though the responsibility of the safety of the labourers and the compensation to be paid to the bereaved family in the event of death in such accidents rests with the contracting agencies, it is also obligatory on the part of the Departmental Officers to ensure that adequate safety measures are adopted by all concerned during such construction works so that precious lives are not lost due to any negligence or lack of safety measures and also increase in cost of the projects on account of the cost and time over-runs can be avoided.

5.1. It is, therefore, suggested that the excavation for bridge structures is carried out strictly according to the specifications contained in clause No. 304 of Specifications for roads and bridge works published in May 1978 and safety measures as spelt out therein are scrupulously observed.

5.2. Where blasting operations are resorted to the safety measures and precautions as specified in Clause No. 302 of the above referred specifications shall always be strictly enforced.

6. These safety measures may also be included to form part of N.I.T. for bridge works with a view to ensure their strict adherence by the executing agencies.