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कार्यालयीन उद्देश्य के  
सभी पत्रादि "मुख्य  
विस्फोटक नियंत्रक" के  
पदनाम से भेजे जाए उनके  
व्यक्तिगत नाम से नहीं .  
All communications intended for  
this Office should be addressed to the  
'Chief Controller of Explosives' and  
NOT to him by name



भारत सरकार  
GOVERNMENT OF INDIA

पेट्रोलियम

तथा विस्फोटक सुरक्षा  
संगठन

**Petroleum and Explosives Safety Organisation**

(पूर्व नाम - विस्फोटक विभाग )

(Formerly- Department of Explosives)

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संख्या /No. C.VIII(3)125/CIR/Explosives  
दिनांक क/Nagpur, dated 21/05/2010

To

**All Explosives Manufacturers.**

**Sub:** A design for reducing ground and air vibration at Testing site in explosives manufacturing units.

Dear Sirs,

All explosives manufacturers are informed that a design on the following lines for testing site for explosives to reduce ground/air vibrations is given below for implementation wherever necessary.

The design shall consist of a pit of depth 3.0 M and an area of minimum 5 M x 5 M. Please refer to the sketch attached which shows five alternate layers of River Sand and Old Truck Tyres. Each layer is 0.6 M thick. Old Truck tyres are each cut in two pieces. The top and the bottom layers are of River Sand. At the ground level around the testing area an earthen mound duly consolidated with a base of 3.0 M, height 3.0 M and top width 1.5 M is provided. This design apparently reduces the ground vibration and air vibration considerably.

Working Details

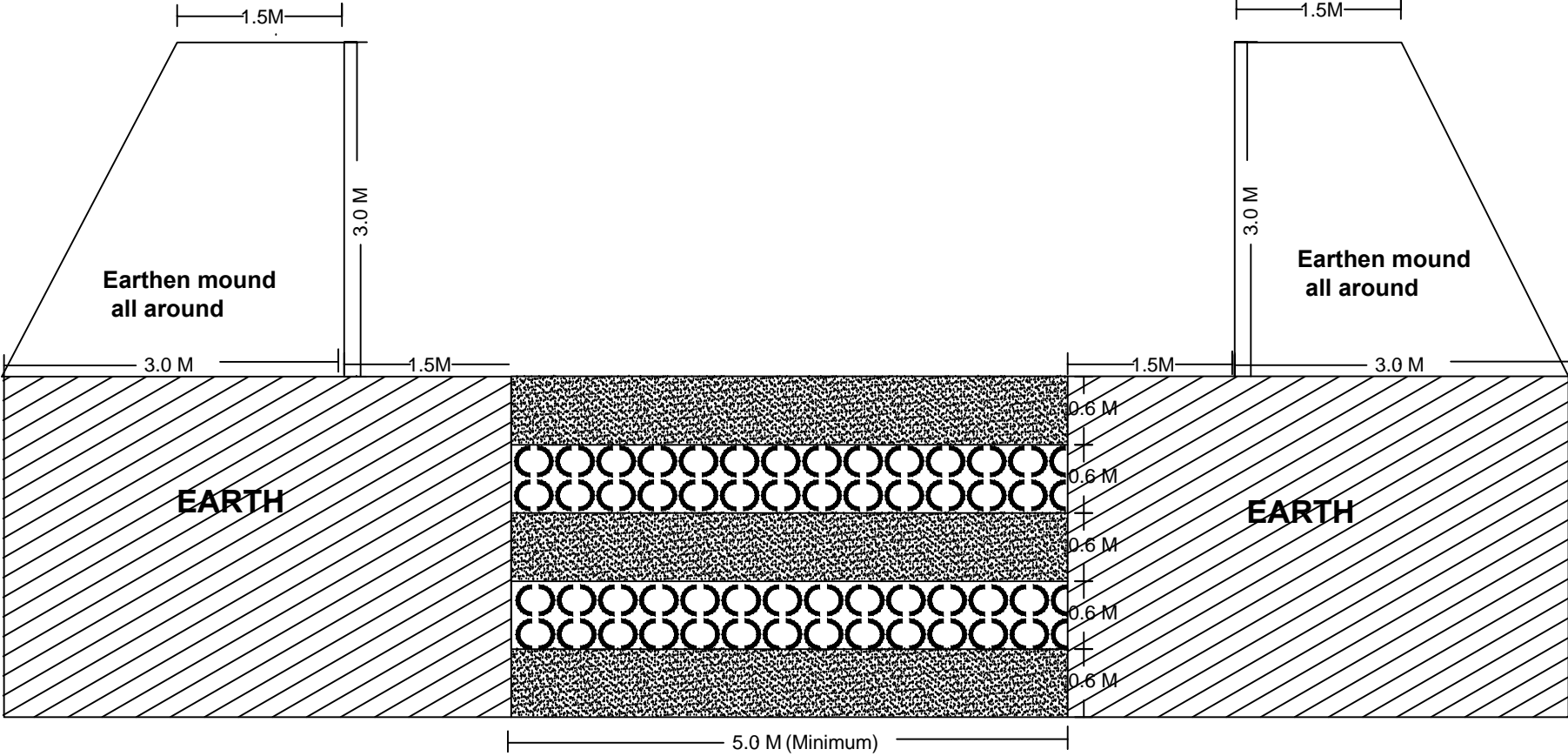
A hard surface always make the ground vibrations to travel fast and provision of loose sand will act as a barrier to reduce the ground vibration from traveling in the earth. The old rubber tyres which are 'C' shape (two 'C' shapes joined together horizontally to form a circular shape) will oscillate whenever any explosion takes place on the ground above them. This up and down oscillations of the rubber tyres will also to a large extent contain the ground vibrations when explosives are blasted for testing at the ground above these two layers. The mound provided at the ground level will contain the air pressure wave produced from traveling horizontally and the wave after echoing inside will subside or travel vertically upwards. This reduces the air pressure in horizontal direction.

Yours faithfully,

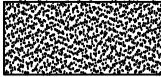
Encl: As above.

( P.B. Yedla )  
Chief Controller of Explosives

# DESIGN FOR TESTING SITE IN EXPLOSIVES MANUFACTURING UNITS



Old truck tyres



Layer of river sand