

## DALMIA CEMENT (B) LIMITED – CEMENT PLANT ARIYALUR SAFETY DEPARTMENT MANUAL



Issue No. 01 Rev. No: 00 Effective Date: 01.11.2010 WI-25(PI-14; AM-7)

Issued By: M.R Approved By: HOD -SAFETY

WORK INSTRIUCTION FOR SAFETY PRECAUTIONS CONFIND SPACES

## **1.0** SAFETY IN CONFINED SPACES:

- 1.1 Before any inspection or entry inside a tank, or air bottle the tank should be thoroughly drained, washed and ventilated. Ventilation should not be confined to purging the atmosphere before entry but in most cases, should be continued throughout the operation.
- 1.2 All inlet and outlet lines should be isolated. The only satisfactory method of isolation is to disconnect them or to use bolted blanks. Do not rely on valves. The isolation should be supplemented by a notice "Danger Men working in tank".
- 1.3 Prior to entry into an enclose space having an atmosphere that may contain toxic or inflammable contaminants or that may be deficient in Oxygen, the atmosphere should be tested with instruments.
- 1.4 Men working in or making inspection of the interior of the tanks with contained acid and alkali, should be provided with rubber gloves rubber boots, rubber trousers, rubber jackets and acid hoods in addition to respiratory protection. The man entering into the tank should be supplied with a safety belt and lifeline with the free end in charge of an attendant.
- 1.5 Before starting any work inside acid or oil tank purge it in steam and water.
- 1.6 Open all manholes and allow the tank for the fresh air entry thoroughly.
- 1.7 If light is needed, use only flashlights or electric lanterns approved for combustible atmosphere. Use only 24 Volts lamps.
- 1.8 Wash sludge, sediment and scale from the tank through the drain or remove it with a pump. Flush out well and overflow the tank with water.
- 1.9 Ventilate or steam the tank for the number of hours required by its size. If steam is used, cool and ventilate (tank up to 48" in diameter requires 12 hrs or more for steaming).
- 1.10 No entry should be made into the tank if the Oxygen content of the tank is less than 16% Make a gas test and if the tank is found vapor free, check conditions inside the tank before issuing work permit.



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- 1.11 Continue ventilation for duration of the work in the tank, and make periodic tests for the presence of gases or vaporized as the work inside the tank is in progress.
- 1.12 Where gas or vapor that is likely to be ignited by a spark is present, use tools and equipments of spark resistant material such as wood, fibre, bronze and stainless steel.
- 1.13 While personnel are entering confined spaces which may be immediately hazardous, a person should always be assigned with no duties other than to observe the personnel in the hazardous atmosphere, tend the lifeline and rescue them if necessary. This person also should be equipped with a harness and lifeline in addition to necessary respiratory equipment.
- 1.14 Communication should be maintained continuously with personnel inside the tanks.
- 1.15 Emergency equipment in good operating condition and must be readily available

Refer format for confined space entry: F1/WI-25 (PI-14; AM-7)