

F. No. VIII-11011/03/2017-DGCD(F)
Government of India
Ministry of Home Affairs
Directorate General FS, CD & HG
Fire Cell

East Block – VII, Level – VII,
R.K. Puram, New Delhi – 110 066
Dated 27th April, 2017

To

The Chairman and Managing Director, IOCL/ BPCL/ HPCL/ONGC/
NRL/MRPL/ GAIL/BORL/CPCL /OIL.

SUBJECT: PROTECTION OF OIL & GAS INSTALLATIONS ACROSS THE COUNTRY

Dear Sir,

This is in continuation to this office letter dated 4th July, 2006 regarding upgradation of fire protection facilities in Oil & Gas sector. Though the industries have given due cognizance to the guidelines, however few very important recommendations are yet to be implemented even after more than a decade.

2. As you are aware, a massive fire in 2005 at Hertfordshire Oil Depot in Buncefield, UK involving 20 oil storage tanks was controlled within 2 days with no loss of human life due to availability of advanced and upgraded firefighting equipment and technologies. However IOCL Terminal Fire at Jaipur in 2009 involving 11 storage tanks continued for 11 days with loss of human life, assets, tree plantation and environment. Another Tank Fire at IOCL Hazira Terminal (Surat) occurred in Jan 2013.

3. After IOCL-Jaipur Terminal fire, Ministry of Petroleum & Natural Gas set up M B Lal committee. 116 recommendations were recommended in 2010 to prevent and fight fire. Most of the recommendations have been implemented, however one of the most important recommendations for setting up of Emergency Response Centre (ERCs) at strategic locations across the country is still pending even after more than 6 years. It is pertinent to inform you that way back in the year 2006, on page No. 9 under clause H, this office had issued a circular dated 4th July 2006 mentioning "NEED OF THE HOUR" to establish ERCs to protect oil installations.

4. If Oil companies are looking for consultant, they must select the Consultant who have wide experience and expertise of minimum 15 years for fire-fighting facilities as per international standard like NFPA and must have experience of providing consultancy for setting up minimum 3 ERC to International Oil companies of different countries. The consultant should also have adequate knowledge of storage fire hazard management and involved in Tank fire incident internationally.

5. It is high time that Oil and Gas companies take immediate action for establishing and positioning of Emergency Response Centres at strategic locations as finalized by Oil Industries committee without any further delay in a time bound manner. Implementation should be done under the scope of design, supply, installation, operation & maintenance, by selecting the well experienced & established contractor. The contractor should have adequate experience of setting up of ERC, 15 years' operating experience of providing emergency firefighting services to multiple oil installations includes handling of different types of fire emergencies of oil terminals including full surface tank fire. In addition, to ensure reliability & prompt service of the contractor, contractor should take share of minimum 10% amount of the contract value as an investment for 2 years. Any compromising in selecting the consultant & the contractor for setting up & operation of ERC

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would be disastrous & jeopardise the entire objective. It is understood, world over such ERCs are in operation since many years.

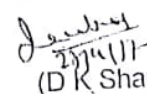
6. Till the time ERC's are set up across the country, ensure that the existing firefighting network systems are ready to fight full surface tank fire effectively by installing appropriate capacity and quantity of foam monitors (HVLR) as per NFPA 11 with constant & continuous automatic foam concentrate feeding to foam monitors for long duration of 65 minutes as the existing manual foam feeding will be totally inadequate as 200 ltrs foam barrel will last for less than 2 minutes, if 1000 GPM monitor is used and it will take 2 to 3 minutes to changeover barrel. Hence it is highly essential to have automatic foam feeding system to control tank fire effectively. .

7. Looking to the technological development taking place world over in every field, it is highly recommended that oil companies should also upgrade their facilities by using latest technologies like:

- Upgrade the existing firefighting system to auto detect the fire and operate the system including checking its health to avoid the human failure for the hydrant line, water storage, pumps, foam stock etc.
- It is recommended to go for advanced technological approved by the international test Lab like UL, FM etc video fire / smoke detection system which uses visual imaging & analytical intelligence to detect fire / smoke at very early stage, most importantly; it provides visual image of the situation to the on-duty operator in place of conventional spot type detector; temperature sensors; beam detectors in the warehouses storing hazardous products.
- Microprocessor based linear heat sensing cable which possess detection chips at every fixed distance ie. 1,2 ,5 10 metres in single length of 3 km may be adopted in place of conventional heat sensing cable which do not pin point exact location. Such linear heat sensing detection system shall have international approval like UL Listed / FM / VdS approved.
- Hypoxic Air Fire Suppressions Systems may be adopted for Control rooms, server, expensive equipment rooms & data storage etc. The system prevents pre-ignition thereby assuring no fire, providing maximum protection for property and persons. Such system should have international approval like UL / FM / EN.
- In addition to above, several other products / technologies like Robotic fire-fighting, wireless communication controller / system; self-extinguishing paint & stickers; pneumatic tube type heat detection with clean agent based extinguishing system to protect dispensing units, electrical cabinets enclosures etc. would be worth considering based on the criticality of the areas.

8. It is requested to implement the recommendations of M.B. Lal Committee in the time bound manner in the interest of safe guarding the nation's assets. In case any queries, please write to the undersigned. Action taken report may be forwarded to this office.

Yours Sincerely,


(D K Shami)

Fire Adviser

Tel. 011-26712951

Copy for information :-

- (i) The Secretary (Petroleum), MoPNG, New Delhi,
- (ii) The Additional Secretary, MoPNG, New Delhi.
- (iii) The Joint Secretary(Refinery), MoPNG, New Delhi.
- (iv) The Joint Secretary(Marketing), MoPNG, New Delhi.
- (v) The Executive Director, OISD, New Delhi.