

इंडियन ऑयल कॉर्पोरेशन लिमिटेड

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रिफाइनरी प्रभाग
Refineries Division

7 January, 2000

To
Mr. Nalin Doshi,
M/s Vimal Fire Controls
Mumbai.

Sub: Your demo of Newly Developed Fire Fighting Systems – 23/12/1999.

I take this opportunity to thank you for inviting us, along with other dignitaries from IOC – Marketing, Pipelines & many other non IOC officials, to witness the demonstration of your “Newly Developed Fire Fighting Systems” at your Baroda works on 23.12.1999.

Please accept my hearty congratulations for such bold & innovative ideas in the field of Fire fighting & Safety as shown by you & your group. All of your team deserves appreciation especially for live demo of tanks under fire & how they were put off within seconds.

The following are my observations on various demonstrations on 23/12/1999.

◆ **Remote controlled monitors:**

We have witnessed two remote controlled water cum foam monitors of 1000 & 2000 GPM capacity. The performance of both the monitors was excellent with a horizontal throw of about 80+ meters and vertical throw of about 55+ meters. These monitors, especially with remote controls, can go a long way in fire fighting operations. Even in places where the manpower is low, these monitors can be of immense help and can help in fighting fires on tall columns, POL terminals & jetties etc.

◆ **Four in one multipurpose nozzle:**

This concept of utilising all the three extinguishing media, at a time, coupled with fog arrangement, was wonderful. Another benefit of this system is that the same can work with all the three extinguishing media, Water, Foam & DCP separately – depending upon the need for the situation.

As I understand the pressure maintained for the firewater network was 7.0 Kg/Sq.Cm. With this pressure, the nozzle design was such that the throw of Foam/Water was about 65 to 70 meters with DCP throw of about 45 meters. The forth element of fog system, provided for this nozzle, will definitely help in protecting the fire fighters as well as dispersing the vapors.



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◆ **Automatic Foam Flooding system: (conversion of old manual system)**

The bold venture to show live fire on a small tank, built for this purpose is praiseworthy. The present manual method, installed in many POL installations etc., in India has no automatic detection system. Moreover, in such installations, after the fire is noticed, it takes considerable time and manpower to mobilise men and material, such as hoses, inductors, Foam stock in barrels etc. Thus the system, as demonstrated, is capable of detection and extinguishing and the existing manual mode can easily be converted into automatic system with minimum additional cost. Thus this concept is unique.

◆ **Conversion of existing Water Monitors into Water cum Foam Monitors:**

As is well known that application of water only cools & for extinguishing the Hydrocarbon fires, it is essential to apply Foam compound and thus foam application system is a pre requisite for all Hydrocarbon industries. The demo of putting off fire in a tank, in just 10 to 15 seconds, with the help of a small (2580 LPM) water monitor, after converting the same into foam cum water monitor, was excellent. Thus the idea of conversion of the existing ISI marked water monitors of small capacities into water cum foam monitors, by fitting with Aqua Foam Nozzles, will go a long way in fire fighting operations.

◆ **Long range – 4000 GPM Aqua Foam Nozzle:**

The 4000 GPM Aqua Foam Nozzle demonstrated was excellent with a horizontal water throw of 90 ± 2 meter & foam throw of 85 ± 2 meter, and with a vertical throw of about 65 meters. This latest addition, after your 2000 GPM monitor is really very good and is very useful in fighting large fires of big petroleum tanks as well as process unit fires.

◆ **Tank automatic fire detection & extinguishing system: (DCP based)**

Last but the most effective system demonstrated live, was the DCP based tank automatic fire detection & extinguishing system. It appears that you have improved over the earlier demo we witnessed at your Baroda works. This system is so effective; it will definitely enhance the safety of POL operations, even in remote areas. If you recall, this is the system we are installing for 12 of our tanks at Gujarat Refinery.

The elaborate arrangements made for demo by building three tanks and laying detailed Fire Water network with a control room for remote operations etc brought you special appreciation from one and all.

I once again thank you & your group for the hospitality shown to our group during the demo.


(C.R. ANANDA RAO)
Chief Manager (Fire & Safety)