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Sub: A.P.State Disaster Response and Fire Services Department- Recent fire accidents in Cold Storages - Lessons Learnt - Fire Safety Measures- Advisory.

Dear Sir,

May I draw your kind attention to the following major cold storage fire accidents that happened in our State.

- (a) **Duggirala Turmeric Cold Storage fire:** A major fire broke out in a Cold Storage in Duggirala, Guntur District on 19th January, 2024. (09) Fire Tenders summoned to the fire spot. Thick smoke and intense flames made it difficult to locate the seat of fire. During the firefighting when the owner and workers opened the storage door, caused burn injuries to eight individuals, including fire officers. In spite of our best efforts, we could not save the turmeric and mint stock worth Rs.67 crores and finally even the building collapsed.
- (b) **Jaggaihpeth Chilli Cold Storage fire:** Another Fire broke out in a Cold Storage at Jaggaihpeth Mandal on 24.03.2025 where chillies and pulses worth Rs.18 Crores reduced to ashes. Even the structure collapsed causing loss to farmers as the produce was **not insured**.

(08) Fire Tenders were used to put-off the fire. The fire spread rapidly, making it difficult for fire-fighters to control and to douse the flames. In addition, we used two tanks (15,000 Kgs) of liquid Co₂ to douse the fire.

The local people have made big holes in the cold storage building to ensure cross ventilation by using JCB and this has made liquid Co₂ ineffective in putting off the fire. If no such deliberate damage to building was done, the liquid Co₂ would have put off the fire in (10) minutes as cold storage is a closed structure and liquid Co₂ expands 500 times filling entire building displacing oxygen thus putting off the fire.

Let us learn from these experiences as the temperatures are soaring, A/c machines are over-working becoming vulnerable to short circuits, given that we have 325 Cold Storages in the State storing farmer's produce. **Conventional water sprinklers are not suitable for these facilities as they damage farmer's produce of red chillies due to water leakage and proved ineffective in practice.**

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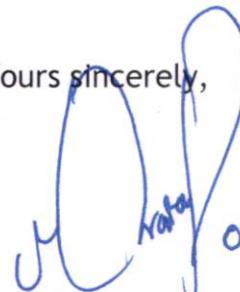
We found that the fire in a Cold storage building can be put off in about 10 minutes with injection of liquid Co₂ into the building with the help of a pipeline. This trial was witnessed by the members of Cold storage association and experts, professors of VIT & KL University.

The liquid Co₂ is not only affordable (Rs.9 per Kg or Rs.1 Lakh per truck load) but also widely available @ 22 locations across the state in distilleries as liquid Co₂ is a by product of liquor making process. So, it is available except in Guntur, Bapatla, Palnadu & Satya Sai Districts. We Can make available by purchasing a Co₂ mobile tanker in these major Cold storage cluster districts through your co-operation.

To effectively inject liquid Co₂ into any Cold storage during fire accident, we need to pre-install a delivery pipe line that can deliver the gas to all parts of the Cold storage from the road point where the liquid Co₂ tanker can be safely parked.

Therefore, I request you to kindly pre-install suitably designed pipe line for using liquid Co₂ to put off any fire. And, **this meets the satisfaction of the Director General to get fire NOC along with submitting an undertaking to insure the farmer's produce stored in the Cold storage.**

Yours sincerely,


03/4/2025
(Madireddy Pratap, IPS.,)