



Dear Sir,

D.O.Lr.No.09/DGFS/AP/2025, Dt: 06.02.2025.

Greetings!

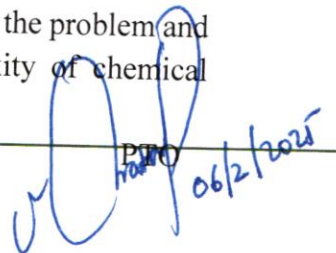
As you are aware, the tragic explosion at Escientia on 21st August 2024, which claimed the lives of 17 individuals and injured 35 others, serves as a grim reminder of the need for enhanced safety measures in industrial facilities.

“Never again” should be our Motto.

In this spirit, I urge you to take immediate corrective actions to address the following design flaws that contributed to this tragic incident.

- (a) The reactor and solvent facilities (with a flashpoint of -18°C) in Zone-I (as per the Hazardous Area Classification Study) are in the same building along with Quality Control labs and office areas. According to safety standards, Zone-I should be physically separated from low-hazardous areas. Had this been the case, we could have minimized the casualties. Ideally, Zone-I hazardous facilities to be not only located in physically separated buildings but also be operated through Distributed Control System with least manual intervention.
- (b) Electrical panels that produce sparks should **never** be located beneath the reactor or solvent handling facilities. However, this is exactly the design at Escientia, which led to ignition and the subsequent explosion. This critical design mistake, if any, must be corrected immediately in all your facilities.
- (c) The Air Handling Unit (AHU), designed to disperse solvent vapours, should be placed **outside** to ensure proper functionality. In Escientia, the AHU was located inside, leading to the accumulation of solvent vapours and the eventual explosion. Had AHU been placed outside to remove any leaked solvent vapours, the explosion wouldn't have occurred. Such serious mistakes, if any, be corrected forthwith in your factory.
- (d) Further, it has come to our attention that several facilities **continue to use water sprinklers in areas where water-reactive chemicals are stored**. This practice not only fails to enhance safety but is, in fact, hazardous. Many of these recommendations were based on misguided advice from fire department, citing the National Building Code (NBC). However, such applications contradict the NBC's overall objectives of ensuring reasonable fire safety. We are sorry.. It is wrong advice and you are hereby requested to discard such harmful practices immediately. For instance: see enclosed letter of M/s. Chemeca Drugs Private Limited, Dt: 05.02.2025

Therefore, any previous NOCs issued prescribing Water Sprinklers in the following critical manufacturing or Storage **areas be forthwith discarded**. I have instructed fire department officials not to give such inappropriate advice that compounds the problem and instead let the managements be guided by experts given the complexity of chemical factories.


06/2/2025

- (i) Areas where water-reactive chemicals are stored.
 - (ii) Ware house tank farm area.
 - (iii) Ware house corrosive chemical store.
 - (iv) Production intermediate area
 - (v) Manufacturing units for electronic goods.
 - (vi) Cold storage units.
 - (vii) Electrical panel rooms, UPS rooms, and server rooms.
- (e) We also observed that the fire hydrant pipes are corroding as the water is with salts and the coastal environments increases corrosion of pipes. This corrosion hampers the system's effectiveness during emergencies. We recommend transitioning to **fire retardant CPVC pipelines**, which are corrosion-free and can use water supplied by gravity from the existing overhead tanks.

Additionally, based on the expected "fire load" at various facilities, it is advisable to install **HP plunger pumps (ranging from 5 HP to 50 HP)** powered by petrol, diesel, or emergency power generators. This system will be corrosion free, low maintenance, reliable, and adaptable to varying water needs based on "fire load".

- (f) We also welcome the use of modern firefighting tools such as foam generators, modular DCP/Aerosol fire extinguishers/clean agent/liquid CO₂/ABC flooding systems, etc. These systems should be tailored to the specific requirements of your facility as recommended by industry experts.

Ultimately, our primary goal is to prevent accidents and reduce fatalities, even in the unfortunate event of an accident. We must embrace modern, proven technologies as the current systems are inadequate for safeguarding against major incidents given the continuing trend of industrial accidents in the State.

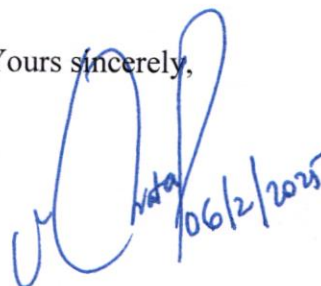
Let us collaborate, learn from past mistakes, and work towards **zero fatalities in 2025 unlike the previous year**, which witnessed over 25 fatalities from accidents in the area.

Please feel free to come up with new ideas to achieve our target of zero fatalities and you are welcome to meet me in person without appointment (9441236448), as ensuring fire safety with better and affordable technology is a continuous learning and collaborative endeavour.

Thank you for your attention to this critical matter. Let us unite to make safety our top priority.

With regards,

Yours sincerely,



(Madireddy Pratap, IPS.)

Date: 05.02.2025

To,

The Director General
State disaster response and fire service
Vijayawada
Andhra Pradesh.

Respected sir,

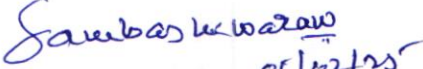
Below areas we are identified water reactive chemicals storage areas

1. Ware house tank farm area
2. Ware house corrosive chemicals store
3. Production intermediate area

We are made dummy all the water sprinkler system and we are taken below precautions

1. Modular type fire extinguishers placed
2. DCP, CO2, ABC class portable fire extinguishers placed
3. Fire balls placed
4. Smoke exhausters placed
5. VOC analysers placed

For Chemeca Drugs Pvt Ltd


Authorized Signatory 05/02/25

ok

5/2/2025