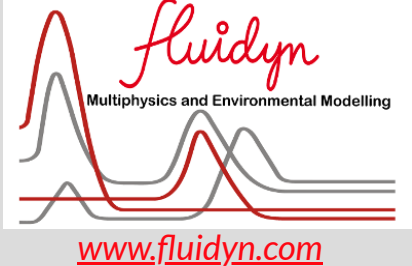


Understanding & Addressing Revised MoEF Guidelines for Environmental Clearance



Upcoming Events:

January 25th, 2024
Webinar on Explosion Modelling
A Free On-demand Webinar on Reactor Explosion Study & Mitigation. [Click here to register.](#)
Time - 3:00 PM to 5:00 PM IST

Past Events:

January 11th, 2024
Webinar on Revised MoEF guidelines in India.
Webinar to address Strategies to Align with the Revised MoEF Guidelines for Environmental Clearance. Email us to know more.

November 28th -30th, 2023
WNE- World Nuclear Exhibition, Paris
We participated in [WNE 2023](#). the world's leading Civil Nuclear Exhibition.

October 10th-13th, 2023
POLLUTEC 2023, LYON
We participated in [Pollutec 2023](#), the largest show on solutions for environment.
We presented two innovations, [Fluidyn-SENSORMAP](#) and [Fluidyn-BFC](#) on this occasion.

September 21st to 25th, 2023
International Trade Show, Greater Noida, India
We exhibited in [UP International Trade Show 2023](#), the biggest Sourcing Show in India.

September 20th, 2023
DRDO Bhawan (Defence Research & Development Organisation), New Delhi
Fluidyn attended a seminar on DGNAI Integrated QA Architecture organised by Indian Navy.

In October 2023, the Ministry of Environment and Forests (MoEF) in India has introduced two additional points in the Specific Conditions for Environmental Clearance for Industry-2 category :

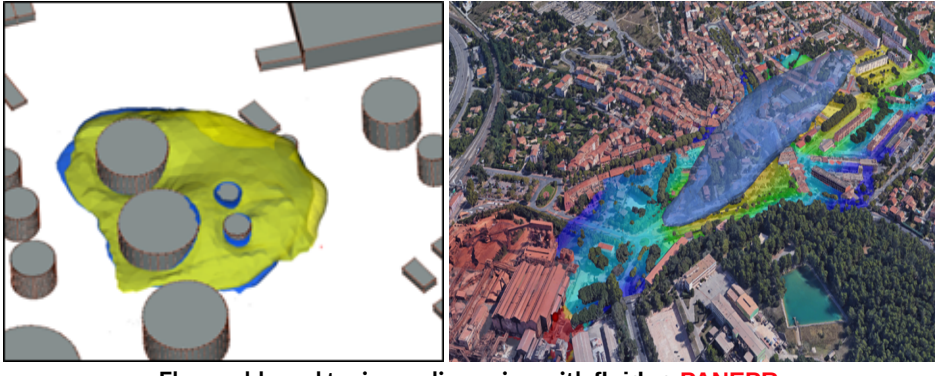
1. *Company shall maintain an Emergency Response Decision support system in such a way so that identification of the detector's network for the location of the leak source and the probable leaked quantity in real-time, followed by modelling of the dispersion of the plume and consequences as forecast is done in advance and thus, no leak accident may go unattended. Accordingly, Risk Mitigation plan shall be in place.*
2. *Company shall determine the distance of fire hydrant while finalizing its location from ethanol storage tanks or any other hazardous storage substance shall be based on dispersion of Thermal Radiation so that during any unforeseen situation fire hydrant is always available to operate manually.*



Gas Mapping | Tool used - [Fluidyn-SENSORMAP](#)

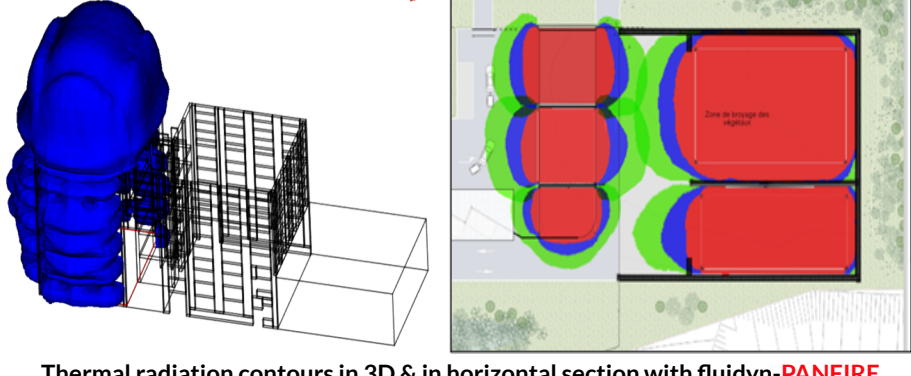
This incorporation of an Emergency Response Preparatory protocol into the array of measures taken to ensure a safe industry relate to Risk Mitigation and F&G Mapping for leak detection pushing for an efficient identification of high-risk areas based on process hazard analysis which, in turn will ultimately lead to improved safety measures. However, this new focus on emergency response and planning will not and indeed, should not trouble our customers. As a matter of fact, Fluidyn has been using a Quantitative Risk Assessment (QRA) approach for the past 20 years now in India and in Europe. The large experience in the risk-based approach we have gathered over the years can be profitably put in use to answer these new requirements.

The first point refers to a design of the Fire & Gas sensor network mapping in a way no leak goes undetected, whatever the weather conditions are and no matter how complex the industrial site is. This calls definitely for the 3D CFD and inverse modelling methodology of [fluidyn-PANEPFR](#) and [fluidyn-REALTI](#). [fluidyn-PANEPFR](#) will forecast the dispersion of toxic and/or flammable gases release in advance, from a few hours to a few days or even as a design scenario. [fluidyn-REALTI](#), in conjunction with the data gathered from the sensors and the weather, is capable of identifying the source of emission, wherever it may be located and provide an estimation of the leaked quantity and dispersion in real-time.



Flammable and toxic gas dispersion with [fluidyn-PANEPFR](#)

The second point falls within the proven capabilities of [fluidyn-PANFIRE](#) which will predict the thermal radiation intensity of accidental liquid or solid fires taking into account the relevant elements, such as firewalls, water curtains or sprinklers.



Thermal radiation contours in 3D & in horizontal section with [fluidyn-PANFIRE](#)

FLUIDYN has developed dedicated tools for pollutants dispersion, ventilation, fire and explosion in confined spaces (chemical/ petrochemical processes, ware houses, storage tanks) integrated with a customized user interface for Geometry model creation or import, scenario definition & in-situ conditions setup. Simulated process results like pressure, temperature, flow velocity etc. are visualized directly on the geometry model. Accident consequences such as dispersion of flammable/toxic gas, fires, explosions and structural damage are visualized as pictures integrated into GIS and animations.

References: [Fire & Gas Mapping Trends - A Comprehensive Guide](#)

Free On-demand Webinar on Reactor Explosion Study : Accident-Consequences-Mitigation

An explosion relates to uncontrolled consequences of a fast chemical reaction but they can be foreseen by modelling and their effect minimized. However the devil is in defining the scenario and initial conditions leading to explosion. **A free on-demand webinar on Reactor Explosion study & Mitigation has been scheduled on 25th January, 2024.** This webinar will bring together an eminent panel of experts to discuss what and how a simulation exercise should be taken up for various kinds of explosions, especially their effect on the integrity of structural elements around, e.g. walls, tanks, piping systems, etc.. and the recommended best practices. A separate invitation will be circulated shortly with more details.

[Click to Register](#)



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