

## INDUSTRIAL ACCIDENTS IN INDIAN CHEMICAL AND MINING INDUSTRIES DURING COVID-19

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### Abstract

As India has returned back to work after the Covid-19 lockdown, there has been an industrial accident at least every two days killing and maiming workers, polluting the surroundings with long-term health and environmental implications.

The toxic gas leak at the LG Polymers plant in Andhra Pradesh on 7 May brought back memories of the Bhopal gas tragedy. The boiler explosion at Yashashvi Raasayan Private Limited at Dahej, Gujarat killed at least eight people and injured about 40. Boiler explosions at Neyveli Lignite Corporation's thermal power plant in Tamil Nadu on 7 May, and again on 1 July, killed at least 20 workers.

The accidents have continued into July in chemical plants, coal mines, steel factories and boiler blasts in power stations. Widespread use of contract workers lack of safety inspections, inadequate penal action against safety violations and not fixing responsibility on the employer are some important factors contributing to the accidents.

The series of accidents expose a pattern of systemic failures; industries halted without proper shutdowns, processes with poor planning, failure to ensure adequate maintenance and inspection during lockdown leads to accidents while industrial processes are being restarted.

In a letter to the Prime Minister of India, Industrial underlined that this kind of mistake falls within the category of Process Safety Management failures and warned the government of India to immediately address this systemic breakdown in safety controls to avert any further potential catastrophes on the scale of the 1984 Bhopal disaster.

**Keywords: india, industrial, covid-19, accidents, chemical, mining, management**

### Introduction

A massive fire broke out at a chemical factory in Visakhapatnam, Andhra Pradesh in the night. Several people got injured in the mishap. Ramky CETP Solvents's building in Pharma City blew up due to reasons yet to be disclosed. The explosions soon turned into a massive fire which was clearly visible across the city. At least 12 fire tenders were deployed to douse the flames. One person died and four were seriously injured. The incident claimed the lives of six men leaving 17 others injured when a boiler exploded at the thermal plant of Neyveli NSE Lignite Corporation (NLC) in Tamil Nadu's Cuddalore district. The mishap took place

around 9.45 am at the fifth unit of the thermal power station-II (210 MW x 7) after a fire broke out. Workers, at that time, were busy with maintenance activities for resuming operations, a company statement said.[1]



### **An aerial view of the Baghjan oil field engulfed in fire, in Tisukia, Assam**

Three labourers died and two others sustained grave injuries in a powerful explosion that occurred due to the lightning in a stone mine in Kabrai area of Mahoba district on June 13, 2020. As per official records, the accident took place when about a dozen labourers were laying out gunpowder and ED for blasting stones in the mine situated near Pahra Pahada village of the district. Lightning struck the explosives and caused a powerful explosion which claimed the lives of three labourers, leaving two injured.

A natural gas well owned by Oil India Limited (OIL) turned into an inferno in Baghjan, Assam next to Dibru-Saikhowa National Park on June 9, 2020. The well had been continuously spewing out gas or undergoing a blowout since May 27 in Tinsukia district. Five people died due to the gas leak in the area. The company had also appointed an environmental consultant to assess the impact of the blowout in nearby areas of the district. OIL assured that it would provide immediate financial relief of Rs 30,000 each to over 1,600 families affected.[2,3]

Eight workers besides 50 others were injured on June 3, 2020, in a massive fire triggered by a blast in the boiler of a chemical factory at Dahej in Gujarat's Bharuch district. As companies of methanol and xylene chemicals were located near the affected factory, authorities shifted about 4,800 people from nearby Luvara and Lakhigam villages to safer places as a part of a precautionary measure. About 230 workers were present inside the factory, Yashaswi Rasayan, located in Dahej Special Economic Zone-1, 42 km from Bharuch, at

the time of the incident in the afternoon. Senior Congress leader and Rajya Sabha MP from Gujarat, Ahmed Patel, took a jibe at BJP government and blamed the state government for the incident. He said factories need to undergo complete safety audit as there have been rising cases of industrial accidents in Gujarat.



### **The tragedy in Visakhapatnam**

The Visakhapatnam gas leak (Vizag gas leak) was an industrial mishap that took place at the LG Polymers chemical plant located on the outskirts of Visakhapatnam, Andhra Pradesh, during the wee hours of May 7, 2020. The resulting vapour cloud spread over a radius of around 3km. The incident claimed 11 lives (including a six-year-old girl), and more than 1,000 fell sick due to the gas leakage. Over 350 were admitted to hospitals after toxic styrene monomer gas leaked from the chemical plant belonging to LG Polymers at RR Venkatapuram.

The investigation is underway. The National Green Tribunal (NGT) took suo motu cognisance of the gas leak incident. On May 8, it directed LG Polymers India to deposit an amount of Rs 50 crore for the damage caused. Also, police on July,7 arrested the CEO and two directors along with eight other officials of LG Polymers in connection with this gas leak incident.

Seven workers fell ill, three of them seriously, after inhaling poisonous gas at a paper mill in Chhattisgarh's Raigarh district on May 7, 2020. The incident occurred at Shakti Paper Mill in Tetla village, where the victims were cleaning a recycling chamber on the same evening. The mill, located around 250 km from State capital Raipur, had remained shut ever since the COVID-19 lockdown was enforced in late March and the cleaning work was underway to resume operations.[4,5]

### **Discussion**

On 25 March 2021, a fire broke out in a Covid-19 hospital located on the third floor of a commercial mall in suburban Mumbai, killing 11 patients. Reportedly, it took over 24 hours, working with 14 fire engines and 10 jumbo water tankers, to douse the fire. The cause for the fire remains unknown. In October 2020, in a similar Covid-19 facility in the same neighbourhood, a fire had killed two patients. Over the last two years, India has witnessed a surge in severe fire and explosion-related accidents in industrial and commercial establishments, exposing India's patchy safety record. [6,7]

Let us recount a few ghastly accidents. On 21 January 2021, a fire broke out at Serum Institute of India in Pune – India's only Covishield vaccine manufacturing facility – killing five workers and damaging

machinery. A toxic gas leak at LG Polymers chemical factory in Visakhapatnam on 7 May 2020, boiler explosions at the thermal power plant in Neyveli Lignite Corporation on 7 May and again on 1 July 2020, and another boiler explosion at Yashashvi Rasayan Private Limited at Dahej in Gujarat on 3 June 2020, are a few prominent cases of industrial accidents. From January to August last year, India witnessed 25 serious industrial accidents killing 120 people and injuring many more.

In March 2021, the Union Labour Ministry informed the parliament that at least 6,500 workers lost their lives during the last five years while working at factories, ports, and construction sites. Official agencies may underestimate the loss of lives as they mostly fail to register accidents at smaller factories and worksites. In response to this, in April 2021, the Ministry has set up three expert panels to investigate the causes of the rising accidents and suggest remedies.[8,9]



### **The blast happened between 2 and 3 am at the unit of Hemani Industries Pvt Ltd., Ankleshwar**

A cynic might quip that the official reaction to the accidents is predictable. They are soon forgotten, only to be overtaken by more severe disasters.<sup>1</sup> Often lax regulation and oversight, inadequate and outdated equipment, and human negligence are the stock reasons, without fixing responsibility on either employers or concerned government authorities for dereliction of duty.

What could account for the apparent spike? While the usual explanations may have merit, they probably ignore the significant changes in the regulatory environment made in recent years that may have contributed to the problem. I contend that perhaps the dilution – or rather the effective abolition – of industrial labour and safety regulations undertaken to boost India's rank in the World Bank's global index of Ease of Doing Business (EDB), may be the real culprit.

In 2015, the newly-elected government sought to address the industrial stagnation by initiating the national goal of 'Make in India' – to raise the manufacturing sector's share in GDP (gross domestic product) to 25% and create 100 million additional jobs in the industry by 2022. Expectedly, achieving this goal requires a massive step-up in investments, which policymakers believe, could mainly accrue from foreign capital. To entice global firms to invest, policymakers reckon that India needs to boost its rank in the EDB index. Hence, the central government – and its think tank NITI Aayog – single-mindedly focussed on improving its global position. The official 'Make in India' website makes the following claims: "India, today is a part of top 100 club on Ease of Doing Business (EoDB). FDI inflows in India stood at \$45.15 bn in 2014-15 and have consistently increased since then. Moreover, total FDI inflow grew by 55%, i.e. from \$231.37 bn in

2008-14 to \$358.29 bn in 2014-20 and FDI equity inflow also increased by 57% from \$160.46 billion during 2008-14 to \$252.42 bn (2014-20)".[10,11]

The idea underlying the EDB index is simple. Economies perform poorly on account of excessive regulations for firms and terms of employing workers, and restricting the freedom of businesses to align their output with market conditions. Policymakers believe that India's labour laws are among the most rigid in the world, as commonly exemplified by the labour inspection system called "inspector raj". Employers and managers often complain that the inspection system is very demanding and is the root of corruption. It holds back the entrepreneurial spirit, driving away potential investors. As the burden of regulation increases with the size of the enterprise, firms often choose to remain small, thus sacrificing economies of scale in production.<sup>3</sup> Firms, therefore, do not grow in size, failing to become global scale organisations.



**Neyveli Lignite Thermal Power Station (NLTPS) in Tamil Nadu's Cuddalore district, issued contradictory statements over the boiler explosion in the plant July 1, 2020.**

Hence, in 2015, to simplify the conduct of business in the country, the central government practically abolished industrial safety laws, such as The Boilers Act, 1923 and Indian Boilers Regulation 1950 – vital regulations in the manufacturing sector. Earlier, the law required the boiler inspector to inspect factories periodically and certify the safety of boilers. This function was transferred to specialised 'third-party' agents with the requisite expertise. The reforms also changed the compliance requirement under the Factories Act, 1948 – the cornerstone of the edifice of labour regulation. The legal obligation was moved from mandatory inspection by government inspectors – with powers to penalise the owner/manager for violating the factory laws – to self-certification by the owner/manager. Therefore, the changed rules view a factory inspector as a facilitator of business, and not an enforcer of labour laws to protect the interests and safety of workers.[12,13]

Maharashtra's initiative soon became the national template for labour law reform. Self-certification is now the motto for most labour laws, as gleaned from the official websites of several state governments. Private agencies have sprung up to assist employers in complying with the simplified labour regulations.

A close perusal of the labour department websites describe the simplified procedures. However, they do not seem to report information on the compliance with the simplified labour laws and their outcomes for jobs, wages, working conditions, and workers' safety.

Interestingly, news reports suggested that third-party certification of boilers in Maharashtra has failed as no factory has received the certificate. None of the factories in Maharashtra complied with the self-certification scheme. In other words, subject to further verification, the reforms have effectively rendered labour and safety regulations toothless [14,15]

Hence, it seems reasonable to suggest that the recent rise in industrial accidents could be associated with the effective dilution of labour and safety regulations with the intention of boosting India's EDB ranking. Unfortunately, trade unions (and industrial relations specialists) seem to have paid inadequate attention to the gravity of the changes initiated in the legal system to appease global capital.

## **Results**

So, one may wonder what India's rising EDB ranking really achieved? It has apparently helped demolish the labour laws and safety regulations, thereby hurting the working poor and their livelihoods – without augmenting employment and output growth. The proposition that the labour market reforms positively affect employment and production is highly contentious, as the Indian policy debate can testify [16,17]

With the scrapping of mandatory government oversight of safety regulations, no mystery, industrial and fire-related accidents have shot up. The labour reforms have seemingly 'rewarded' India's working poor with greater workplace insecurity for helping India climb the ladder of 'global best practices'.

Incidentally, the supposed accomplishment exposes entrepreneurial myopia. Firms fail to realise that workplace accidents raise insurance costs. Loss of skilled workers in accidents undermines productivity growth and profits in the long term. If the evidence and arguments laid out above have merit, then the government's single-minded attention to boost India's EDB index rank by knocking down the labour laws has failed to achieve the 'Make in India' goal.

The expert committees formed by the Ministry of Labour to look into the causes of the rising ghastly accidents mentioned earlier, should, I submit, investigate if the dilution of safety regulation could have contributed to non-compliance of safety rules.[18,19]

## **Conclusions**

According to data collated by Industrial Global Union, as many as 116 industrial accidents in chemical and mining industries were reported in the country that led to the death of at least 231 workers between May last year and June this year. From May to December, 2020, around 64 accidents were reported wherein 118 workers were killed and several hundreds were injured. From January to June 2021 over 117 workers were killed and about 142 workers were injured in about 52 industrial accidents happened in mining and chemical industries.

"In fact, since the resumption of industrial activities after the Covid-19 lockdown measures in May 2020, India witnessed series of industrial accidents," Industrial said in a statement. "These statistics are merely

indicative of the grave situation as they are based on compilation of mainstream media reports and accidents reported by Industrial trade union affiliates. The real number of accidents and fatalities may be much higher." [20]

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