

**BEFORE THE NATIONAL GREEN TRIBUNAL  
WESTERN ZONE BENCH, PUNE**

**ORIGINAL APPLICATION NO. 19/2020 (WZ)**

**IN THE MATTER OF: -**

**SAYYED MOHAMMED SABIR USMAN**

**APPLICANT**

**VERSUS**

**MEMBER SECRETARY, CPCB & ORS**

**RESPONDENT(S)**

**INDEX**

S.No.	Particulars	Page No.
1.	<b>JOINT COMMITTEE REPORT IN THE MATTER OF ORIGINAL APPLICATION NO. 19/2020 (WZ) - SAYYED MOHAMMED SABIR USMAN VS MEMBER SECRETARY, CPCB &amp; ORS, IN COMPLIANCE WITH HON'BLE NGT, SPECIAL BENCH ORDER, DATED 20.12.2021</b>	
2.	<b>Annexure I - Copy of Hon'ble National Green Tribunal (NGT) West Zone Bench order dated 20.12.2021</b>	
3.	<b>Annexure II - Copy of Consent To Establish (CTE) dated 24.03.2008 issued by Maharashtra Pollution Control Board (MPCB)</b>	
4.	<b>Annexure III - Copy of Environment Clearance (EC) dated 07.06.2011 and EC revalidation letter dated 20.12.2018 issued by State Environment Impact Assessment Authority (SEIAA)</b>	
5.	<b>Annexure IV - Copy of Consent To Operate (CTO) dated 02.01.2020 issued by Maharashtra Pollution Control Board (MPCB)</b>	
6.	<b>Annexure V - Photographs taken during the site visit of Joint Committee on 22.02.2022</b>	
7.	<b>Annexure VI - Copy of Report dated 24.01.2020 of Directorate of Industrial Safety and Health (DISH) related to the accident at M/s Ank</b>	

	Pharma, MIDC, Tarapur	
8.	<b>Annexure VII</b> - Copy of Report dated 12.01.2020 of Maharashtra Pollution Control Board (MPCB) related to the accident at M/s Ank Pharma, MIDC, Tarapur	
9.	<b>Annexure VIII</b> - Copy of Report dated 17.03.2020 of Committee constituted by Government of Maharashtra under Chairmanship of Divisional Commissioner, Konkan Division to find out cause of accident occurred at M/s Ank Pharma Pvt. Ltd., and to suggest remedial measures	
10.	<b>Annexure IX</b> - Joint Committee (Collector, Palghar and MPCB) Report dated 09.11.2020 submitted to Hon'ble NGT in compliance with order dated 02.07.2020 in the matter OA No. 19 of 2020 (WZ)	
11.	<b>Annexure X</b> - Copy of Notice dated 31.01.2020 issued by Directorate of Industrial Safety and Health (DISH)	
12.	<b>Annexure XI</b> - Copy of closure direction dated 13.01.2020 issued by Maharashtra Pollution Control Board (MPCB)	
13.	<b>Annexure XII</b> - Copy of letter dated 02.06.2022 from Deputy Labour Commissioner, Palghar with details of deceased and injured persons including name, age, salary etc.	
14.	<b>Annexure XIII</b> - Copy of letter from Directorate of Industrial Safety and Health (DISH) letter dated 13.04.2022 with information on nature of injury to injured persons	
15.	<b>Annexure XIV</b> - Copy of letter dated 07.04.2022 from Industry about details of compensation and medical expenses paid by the Industry	
16.	<b>Annexure XV</b> - Copy of letter dated 17.02.2022 from Collector Office, Palghar about information on compensation under Chief Minister Relief Fund paid to deceased persons.	
17.	<b>Annexure XVI</b> - Compensation assessed by the Committee for the deceased persons	

Place : Pune

Date : 21.07.2022



(Bharat Kumar Sharma)

Regional Director  
Central Pollution Control Board  
Regional Directorate, Pune

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क्षेत्रीय निदेशक / Regional Director  
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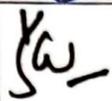
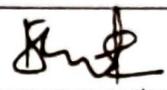
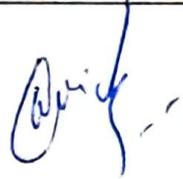
**REPORT OF COMMITTEE IN THE MATTER OF  
ORIGINAL APPLICATION NO. 19/2020 (WZ)  
(Sayyed Mohammed Sabir Usman Vs Member Secretary, CPCB & Ors)  
IN COMPLIANCE WITH ORDER OF HON'BLE NGT,  
SPECIAL BENCH, NEW DELHI, DATED 20.12.2021**

**Blast Incident at M/s. Ank Pharma Pvt. Ltd.,  
Plot No. M-2, MIDC, Tarapur Taluka-District-Palghar,  
Maharashtra**

**FOR SUBMISSION TO  
HON'BLE NATIONAL GREEN TRIBUNAL,  
SPECIAL BENCH, NEW DELHI**

**JULY 2022**

**REPORT OF COMMITTEE IN THE MATTER OF  
ORIGINAL APPLICATION NO. 19/2020 (WZ)  
(Sayed Mohammed Sabir Usman Vs Member Secretary, CPCB & Ors)  
IN COMPLIANCE WITH ORDER OF HON'BLE NGT,  
SPECIAL BENCH, NEW DELHI, DATED 20.12.2021  
COMMITTEE MEMBERS**

Name	Name of Institute/Department Organization	Signature
Prof. Sandip Roy, Professor, Department of Chemical Engineering	Indian Institute of Technology (IIT) Bombay	
Shri. Pankaj Joshi Member, SEIAA	State Environment Impact Assessment Authority (SEIAA) Maharashtra	
Dr. Kiran Mahajan Additional District Magistrate and Resident Deputy Collector	Collector Office, Palghar	
Shri Dhanaji Torasakar Sub-Divisional Magistrate, Palghar		
Shri. Santosh Warick Chief Fire Officer and Fire Advisor, Maharashtra Industrial Development Corporation (MIDC)	Representative from State Disaster Management Authority (SDMA), Maharashtra	
Shri. Amol Bait Deputy Director, DISH	Directorate of Industrial Safety and Health (DISH), Palghar	
Shri. Ravi Andhale Regional Officer, MPCB	Maharashtra Pollution Control board (MPCB), Thane	
E. THIRUNAVUKKARASU Scientist 'E' Integrated Regional Office	Ministry of Environment, Forest & Climate Change, Nagpur (MoEF &CC), Nagpur ( Nodal Agency)	
Shri Pratik Bharne Scientist 'E'	Central Pollution Control Board (CPCB), Regional Directorate, Pune ( Nodal Agency)	

## CONTENT

SR. NO.	DETAILS/ITEMS	PAGE NO.
01	<b>BACKGROUND</b>	1
02	<b>THE COMMITTEE</b>	2
03	<b>SCOPE OF COMMITTEE</b>	3
04	<b>APPROACH</b>	3
05	<b>ABOUT INDUSTRY- M/S. ANK PHARMA PVT. LTD.</b>	4
06	<b>SEQUENCE OF EVENTS</b>	7
07	<b>DESCRIPTION &amp; PROBABLE CAUSES OF THE ACCIDENT</b>	9
07.1	GENERAL MANUFACTURING PROCESS OF OCBA & DETAILS OF THE REACTOR	12
08	<b>ACTION TAKEN BY VARIOUS DEPARTMENTS &amp; UNDER VARIOUS ACTS/RULE</b>	13
08.1	ACTION TAKEN BY DIRECTORATE OF INDUSTRIAL SAFETY & HEALTH (DISH) UNDER FACTORIES ACT- 1948 AND MAHARASHTRA FACTORY RULES, 1963	13
08.2	ACTION TAKEN BY MAHARASHTRA POLLUTION CONTROL BOARD (MPCB) UNDER THE WATER (P & CP) ACT, 1974 & AIR (P & CP) ACT, 1981	16
08.3	ACTION BY POLICE DEPARTMENT	16
08.4	MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION (MIDC)	17
08.5	LABOR DEPARTMENT	20
<b>09</b>	<b>EXTENT OF DAMAGE TO LIFE, ENVIRONMENT &amp; PROPERTY</b>	20
09.1	DAMAGE TO LIFE	20
09.2	DAMAGE TO ENVIRONMENT	20
09.3	DAMAGE TO PROPERTY-	20
<b>10.</b>	<b>COMPENSATION TOWARDS LOSS OF LIVES AND INJURIES AND DAMAGE TO ENVIRONMENT</b>	21
10.1	COMPENSATION TOWARDS LOSS OF LIVES AND INJURIES	21
10.1.1	COMPENSATION PAID TO INJURED PERSONS	22
10.1.2	COMPENSATION TO BE PAID TO THE INJURED PERSONS	22
10.1.3	COMPENSATION/EX-GRATIA PAID TO DECEASED PERSON	23
10.1.4	COMPENSATION ASSESSMENT BY THE COMMITTEE FOR THE DECEASED PERSON	23
10.2	COMPENSATION TOWARDS DAMAGE TO ENVIRONMENT	32
<b>11.</b>	<b>OBSERVATIONS OF COMMITTEE ON THE ISSUES TO BE CONSIDERED AS MENTIONED IN THE ORDER OF HON'BLE NGT DATED 20.12.2021</b>	33
11.1	COMPLIANCE OF MSIHC RULES, 1989/ ACCIDENTS (EMERGENCY	33

	PLANNING, PREPAREDNESS, AND RESPONSE) RULES, 1996	
11.2	ENVIRONMENTAL CLEARANCE FOR THE PROJECT	37
<b>12.</b>	<b>CONCLUSIONS</b>	39
<b>13.</b>	<b>RECOMMENDATIONS</b>	42
<b>14.</b>	<b>SUGGESTED REMEDIAL MEASURES</b>	43

## LIST OF TABLES

SR. NO.	DETAILS/ITEMS	PAGE NO.
TABLE 1	NAME & INSTITUTE/ DEPARTMENT OF COMMITTEE MEMBERS	2
TABLE-2	LIST OF PRODUCTS WITH QUANTITY AS PER CTE (MPCB)	6
TABLE-3	LIST OF PRODUCTS WITH QUANTITY AS PER CTO (MPCB)	6
TABLE 4	DETAILS OF DECEASED PERSONS	10
TABLE 5	DETAILS OF INJURED PERSON	11
TABLE 6	COMPENSATION AS PER EMPLOYEE'S COMPENSATION ACT 1923 & AMENDMENTS THEREOF	24
TABLE 7	COMPENSATION AS PER ASSESSMENT OF COMMITTEE CONSIDERING EMPLOYEE'S COMPENSATION ACT, HON'BLE SC CASES AND EX-GRATIA/COMPENSATION PAID (STATE GOVT/INDUSTRY) TO THE KIN OF EACH DECEASED PERSON	31
TABLE 8	RAW MATERIALS AND PRODUCTS USED DURING THE BLAST AND AS PER COSNSENT APPLICATION, CONSNET TO OPERATE AND ENVIRONMENTAL CLEARANCE	35

## LIST OF FIGURES

SR. NO.	DETAILS/ITEMS	PAGE NO.
IMAGE-1	MIDC TARAPUR AND LOCATION OF M/S. ANK PHARMA, DIST- PALGHAR	4
IMAGE-2	LOCATION IMAGE OF M/S. ANK PHARMA, MIDC TARAPUR, DIST- PALGHAR	5

## LIST OF ANNEXURE

SR. NO.	DETAILS/ITEMS
ANNEXURE-I	Copy of Hon'ble NGT order dated 20.12.2021
ANNEXURE-II	Copy of Consent To Establish (CTE) dated 24.03.2008 issued by Maharashtra Pollution Control Board (MPCB)
ANNEXURE-III	Copy of Environment Clearance (EC) dated 07.06.2011 and EC revalidation letter dated 20.12.2018 issued by State Environment Impact Assessment Authority (SEIAA)
ANNEXURE-IV	Copy of Consent To Operate (CTO) dated 02.01.2020 issued by Maharashtra Pollution Control Board (MPCB)
ANNEXURE-V	Photographs taken during the site visit of Joint Committee on 22.02.2022
ANNEXURE-VI	Copy of Report of Directorate of Industrial Safety and Health (DISH) dated 24.01.2020 related to the accident at M/s Ank Pharma, MIDC, Tarapur
ANNEXURE-VII	Copy of Report of Maharashtra Pollution Control Board (MPCB) dated 12.01.2020 related to the accident at M/s Ank Pharma, MIDC, Tarapur
ANNEXURE-VIII	Copy of Report of Committee constituted by Government of Maharashtra under Chairmanship of Divisional Commissioner, Konkan Division to find out cause of accident occurred at M/s Ank Pharma Pvt. Ltd., and to suggest remedial measures
ANNEXURE-IX	Joint Committee Report (Collector, Palghar and MPCB) dated 09.11.2020 submitted to Hon'ble NGT in compliance with order dated 02.07.2020 in the matter OA No. 19 of 2020 (WZ)
ANNEXURE-X	Copy of Notice dated 31.01.2020 issued by Directorate of Industrial Safety and Health (DISH)
ANNEXURE-XI	Copy of closure direction dated 13.01.2020 issued by Maharashtra Pollution Control Board (MPCB)
ANNEXURE-XII	Copy of letter from Deputy Labour Commissioner, Palghar dated 02.06.2022 with details of deceased and injured persons including name, age, salary etc.
ANNEXURE-XIII	Copy of letter from Directorate of Industrial Safety and Health (DISH) letter dated 13.04.2022 with information on nature of injury to injured persons
ANNEXURE-XIV	Copy of letter from Industry dated 07.04.2022 about details of compensation and medical expenses paid by the industry
ANNEXURE-XV	Copy of letter from Collector Office, Palghar dated 17.02.2022 about information on compensation under Chief Minister Relief Fund paid to deceased persons.
ANNEXURE-XVI	Compensation assessed by the Committee for the deceased persons

**REPORT OF COMMITTEE IN THE MATTER OF ORIGINAL APPLICATION NO. 19/2020 (WZ) IN COMPLIANCE WITH ORDER OF HON'BLE NGT, SPECIAL BENCH, NEW DELHI, DATED 20.12.2021 RELATED TO BLAST AT M/S ANK PHARMA PVT LTD MIDC TARAPUR RESULTING INTO DEATHS OF EIGHT PERSONS & INJURIES TO SEVEN**

**01. BACKGROUND:**

On 11<sup>th</sup> January 2020 evening, a blast took place at M/s. Ank Pharma Pvt. Ltd., Plot No. M-2, MIDC Tarapur Industrial Area, Boisar (W), Dist Palghar, resulting in the death of eight workers and injuries to seven workers.

The Government of Maharashtra formed a committee vide order dated 15.01.2020 as per Section-90 of The Factories Act, 1948, under the Chairmanship of Divisional Commissioner, Konkan Division, Navi Mumbai to find the cause of this explosion and suggest remedial measures to avoid such type of accidents in future. The Enquiry Committee consisted of Divisional Commissioner-Konkan Division, Member Secretary, Directorate of Industrial Safety and Health (DISH) and Chief Fire Officer, Maharashtra Industrial Development Corporation (MIDC). The committee submitted its report to the Government of Maharashtra on 17.03.2020.

The Original Application (OA) was filed on 13.03.2020 and vide National Green Tribunal (NGT) order dated 02.07.2020 the Tribunal issued notice and appointed a fact-finding Committee comprising of Collector, Palghar and Maharashtra Pollution Control Board (MPCB). The committee submitted its report before the Hon'ble NGT on 09.11.2020. Further, the matter was considered on 13.08.2021 in which the Tribunal noted that that adequate compensation had not been provided to the family members of the deceased and environmental and safety norms were not complied with.

In a subsequent development, Hon'ble NGT passed an order dated 20.12.2021 (**Annexure-I**) constituting an eight-member fact-finding Committee comprising MoEF&CC; CPCB; State PCB; District Magistrate, Palghar; Director, Department of Industrial Safety and Health; State Disaster Management Authority, SEIAA, Maharashtra and IIT Bombay, to ascertain *“The factual aspects about sequence of events, cause of failure to prevent the accident, extent of damage to life/environment, amount of compensation required to be paid and other remedial measures needed have to be determined by this Tribunal for exercising its jurisdiction under Section 15 read with Section 20 of NGT Act.”*

The MoEFCC and the CPCB were appointed as the nodal agencies for coordination of the functioning of the committee and subsequent submission of a report addressing the directive from NGT. The Tribunal also directed all authorities of the State of Maharashtra to facilitate the Committee.

## 02. THE COMMITTEE

In compliance to the aforesaid order, an eight-member committee was constituted as below:

**TABLE 1 NAME & INSTITUTE/ DEPARTMENT OF COMMITTEE MEMBERS**

<b>Name</b>	<b>Name of Institute/Department</b>
Prof. Sandip Roy, Professor, Department of Chemical Engineering	Indian Institute of Technology (IIT) Bombay,
Shri. Pankaj Joshi Member, SEIAA	State Environment Impact Assessment Authority (SEIAA), Maharashtra
Dr. Kiran Mahajan Additional District Magistrate and Resident Deputy Collector	Representatives from Collector Office, Palghar
Shri Dhanaji Torasakar Sub-Divisional Magistrate, Palghar	
Shri. Amol Bait Deputy Director, DISH	Directorate of Industrial Safety and Health (DISH), Palghar

Shri. Santosh Warick Chief Fire Officer and Fire Advisor, Maharashtra Industrial Development Corporation (MIDC)	Representative from State Disaster Management Authority (SDMA), Maharashtra
Shri. Ravi Andhale Regional Officer	Maharashtra Pollution Control Board (MPCB), Thane
E. THIRUNAVUKKARASU Scientist 'E', Integrated Regional Office	Ministry of Environment, Forest & Climate Change, Nagpur (MoEF &CC), Nagpur (Nodal Agency)
Shri Pratik Bharne Scientist 'E',	Central Pollution Control Board (CPCB) Regional Directorate, Pune (Nodal Agency)

### 03. SCOPE OF COMMITTEE:

As per aforesaid order dated 20.12.2021, the scope of the committee was to ascertain -

- factual aspects about sequence of events
- cause of failure.
- extent of damage to life/environment
- amount of compensation required to be paid and other remedial measures

### 04. APPROACH

Based on the direction of the Hon'ble NGT in the order, the Committee adopted the following approach:

- First meeting of the committee members was conducted through VC on 08.02.2022 followed by a site visit and physical meeting on 22.02.2022 at MIDC Tarapur. During the visit, industry representative Shri Ankit N. Patel and Shri Salil Jadhav were present.
- Meeting among the members through VC on 29.03.2022 and 20.04.2022.
- Collection / compilation / interpretation of information / reports / documents from concerned departments (Collector Office, DISH, MPCB, Industry etc) and inputs / comments from members

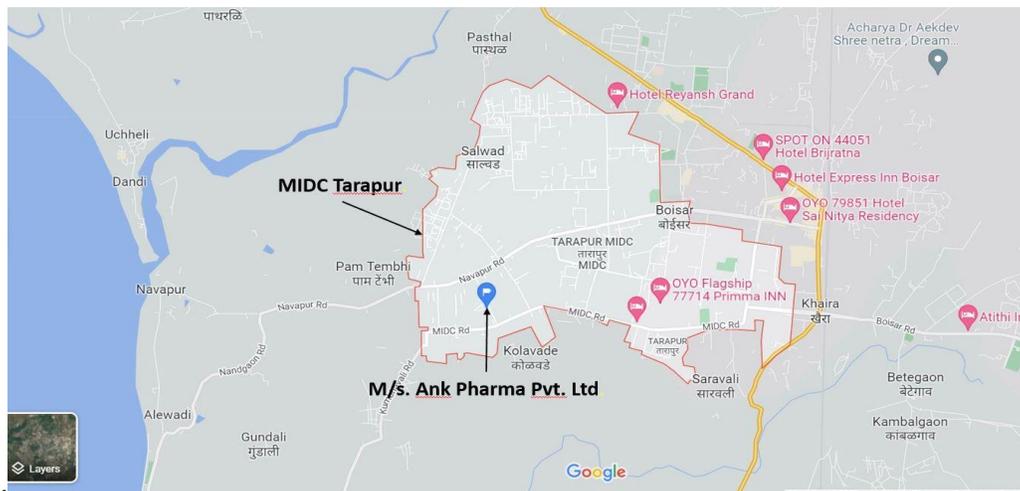
- Preparation of draft report, deliberation of members and finalization of Committee Report.

## 05. ABOUT INDUSTRY- M/S. ANK PHARMA PVT. LTD.

M/s. Ank Pharma Pvt. Ltd. is located at Plot No. M-2, MIDC, Tarapur, Ta-Boisar (W) Dist Palghar and intended to manufacture bulk drugs / bulk drug intermediates. Shri Natwarbhai Vithhaldas Patel and Shri Ankit Narvarlal Patel are the directors of the said Industry.

The industry is located in designated industrial area developed by Maharashtra Industrial Development Corporation (MIDC) at Tarapur which is one of Critically Polluted Area (CPA) in Maharashtra.

The location of the Industry is given in **Image-1 & 2** provided as below-



**Image-1 MIDC Tarapur and location of M/s. Ank Pharma, Dist-Palghar**



**Image-2 Location image of M/s. Ank Pharma, MIDC Tarapur, Dist-Palghar**

Total area of the plot is 4000 square meter. The entrance to the factory is provided at the road side (North). Security cabin is constructed at the entrance near main gate. There is a three storied RCC building (Building 1) having ground and three floor construction at the left side of the entrance. Total construction area of that building is approximately 977.46 square meters. Two reactors were installed on the RCC platforms. Another RCC building (Building 2) is constructed at back side of the production building. This building is used for storage of raw materials and equipment. That RCC building is having ground plus two floors. Total area of construction of that building is 1799.33 square meter. It is at about 60-70-meter distance from Building 1. The blast occurred at Building 1.

A RCC building – 1 was having ground plus three floors. One office was provided at mezzanine floor and two rooms were provided beside the office where two families of employees were residing. One reactor (cap-10 KL) was provided at first floor resting on RCC platform whereas another reactor was provided at second floor and it was still not taken in use. Baby Boiler (steam generator) with all its accessories was located at back side of the building near office at ground floor.

The industry has obtained Consent to Establish (CTE) in 2003 from Maharashtra Pollution Control Board (MPCB) for the manufacture of following products-

**TABLE-2 LIST OF PRODUCTS WITH QUANTITY AS PER CTE (MPCB)**

Sr. No.	Product	Max. Qty
1	Poridone-Iodine	2.0 MT/M
2	Piroxicalm	0.7 MT/M
3	Phenyl Propanol Amine-HCL	0.5 MT/M
4	Nalidixin Acid	0.3 MT/M

The Industry has obtained Environment Clearance (EC) from State Environmental Impact Assessment Authority (SEIAA) vide letter No. SEAC/2010/CR 654/TC.2 dated 07.06.2011 for new bulk drug unit (of total capacity 4.3 MT/month) and the same was re-validated vide letter dated 20.12.2018 for a period up to 05.06.2023.

The Industry has been issued part Consent to Operate (CTO) dated 02.01.2020 from MPCB for the manufacturing of the following products-

**TABLE-3 LIST OF PRODUCTS WITH QUANTITY AS PER CTO (MPCB)**

Sr. No.	Product	Max. Qty
1	Poridone-Iodine	2.0 MT/M
2	Piroxicalm	0.7 MT/M
3	Phenyl Propanol Amine-HCL	0.5 MT/M
4	Nalidixin Acid	0.3 MT/M
5	Cholorosoxazone	0.7 MT/M
6	Phenyl Ephrine HCL	0.1 MT/M

The copies of Consent to Establish (CTE), Environment Clearance (EC) and Consent to Operate (CTO) are provided at **Annexure-II**, **Annexure-III** and **Annexure-IV** respectively.

This industry was not registered under Factories Act, 1948 and did not obtain Factory License from Directorate of Industrial Safety & Health (DISH).

The committee made site visit on 22.02.2022 and the photographs taken during the visit and after the incident (obtained from other reports) are provided at **Annexure-V**.

## 06. SEQUENCE OF EVENTS

The sequence of the events are as follows-

**11.01.2020** Reaction of Ortho-Chlorotoluene (OCT) (99.5%) and Nitric Acid (HNO<sub>3</sub>) (58%) was going on 11/01/2020. The batch was charged in SS Reactor by Operator Shri. Mohan Ingale

16:00 Hrs Stirring and heating was started

**19:00 Hrs Explosion occurred in the SS Reactor**

Mutual Aid Response Group members (MARG) reached the spot few minutes later.

Operation of removing debris from the site started with the help of Earthmovers / JCB etc. under the guidance of Collector, Palghar.

21:00 Hrs Information about incident received by Police Department Officials.

22:00 Hrs Directorate of Industrial Safety & Health (DISH) officials arrived at the spot.

Till midnight about 07 persons injured were shifted to Thunga Hopsital, Boisar and 06 dead bodies were recovered from the debris.

**12.01.2020**

00.30 Hrs NDRF team reached the accident spot and started the search operation.

07.00 Hrs NDRF again started the search operation.

11:00 Hrs Two dead bodies were recovered from the debris.

12.30 Hrs Search and rescue operation was completed

Various departments (Collector Office, DISH, MPCB, Police etc) visited the incident site, nearby area and prepared reports. The reports of DISH dated 24.01.2020 and MPCB dated 12.01.2020 are provided at **Annexure-VI** and **Annexure-VII**.

The Government of Maharashtra formed a committee vide letter No. FAC2020/07/Labour-4, Mantralaya, Mumbai dated 15.01.2020 as per Section 90 of The Factories Act,1948 under the Chairmanship of Divisional Commissioner, Konkan Division, Navi Mumbai to find the cause of this explosion and suggest remedial measures to avoid such type of accidents in future. The Enquiry Committee consisted of Divisional Commissioner-Konkan Division, Member Secretary, Directorate of Industrial Safety and Health (DISH) and Chief Fire Officer, Maharashtra Industrial Development Corporation (MIDC). The committee submitted its report to the Government of Maharashtra on 17.03.2020. The copy of the report is attached as **Annexure-VIII**.

Hon'ble NGT in this matter vide order dated 02.07.2020 appointed a fact-finding Committee comprising of Collector, Palghar and Maharashtra Pollution Control Board (MPCB). The committee (Collector & MPCB) submitted its report before the Hon'ble NGT on 09.11.2020 which is given at **Annexure-IX**.

This committee has taken in to consideration all the above reports/documents, visited the site, also sought additional information from Collector Office, DISH, MPCB, Industry, as per the task/mandate given for the preparation of the report of the committee to be submitted as per order dated 20.12.2022.

**The following paras in this report are based on above mentioned reports/documents, site visit, additional information from Collector Office, DISH, MPCB, Industry, discussion/meetings among the members, etc.**

## 07. DESCRIPTION & PROBABLE CAUSES OF THE ACCIDENT

The Industry was engaged in the process of making drug intermediate like Ortho Chlorobenzoic Acid (OCBA) with raw materials- Ortho Chlorotoluene (99.5%) and Nitric Acid (58%), as reported on trial basis, but no permission had been obtained for its manufacture, and also the said product is not mentioned in the Consent and EC.

Ortho Chlorobenzoic Acid (OCBA) is used as a raw material for manufacturing of another drug intermediate like Mefenamic Acid. Mefenamic Acid is manufactured in M/s Alexo Chemicals, Plot no N-174, MIDC Tarapur which is sister concern Industry of M/s ANK Pharma Pvt Ltd, M-2 and run by the same occupier.

One reactor was located at first floor whereas another reactor was located at second floor of the factory Building 1. Manufacturing process was carried out in this building. The reaction of Ortho-chlorotoluene (99.5%) using nitric acid (58%) was going on 11/01/2020. The batch was charged by reactor Operator Shri. Mohan Ingale. First, water was taken into SS reactor and then 600 kg of HNO<sub>3</sub> (58%) was added to it. Then Ortho-chlorotoluene was charged into reactor. The stirring and heating was started since 4.00 pm as the reaction of Ortho-Chlorotoluene with nitric acid is highly exothermic.

This reaction might have become runaway due to one of the following reason –

- a) Steam heating is not stopped at predetermined temperature,
- b) Cold water circulation have not started,
- c) Failure of cooling water circulation pump,
- d) Failure of stirrer,
- e) Absence of cold-water circulation through cooling tower, for maintaining the reactor temperature at a pre-determined safe level

As reaction became runaway, the temperature of reaction mass was continuously increasing leading to violent boiling and decomposition of the chemicals leading to

sudden rise in pressure inside the reactor. This reactor was not provided with safety valve and rupture disc for emergency venting of large quantities of vapours inside the reactor which lead to sudden explosion of the reactor.

The massive explosion caused rupture of the reactor, breaking of columns and beams adjacent to reactor, breaking of RCC slab of part of first floor, brick walls and glasses were also shattered. Due to this explosion, SS reactor of thickness 22 mm got busted and fragmented in to three pieces vertically. Half of the portion was lying on the ground floor of the factory whereas half of the portion was thrown away at about 25-30 feet distance from production area and split in two pieces. The RCC structure, beams, columns, walls and slab of the first and ground floor got damaged and some portion collapsed. The accessories of the reactor and steam boiler got damaged and thrown away. Compound walls and building walls of nearby factory M/s Galaxy Surfactants Ltd, Plot no M-3 got damaged due to shock wave of the explosion.

During operation of reactor, Shri Mohan Ingle, Operator was standing near the reactor, due to impact he died on the spot and Shri. Natwarlal Patel, Director of the industry was standing near ETP, also got hit by debris and broken window glasses due to which he got severe multiple injuries and was admitted for medical treatment at Wockhardt Hospital, Mira Road. Other injured persons were admitted to Thunga Hospital, Boisar and discharged from hospital after the treatment. The details of deceased and injured persons in the incident are provided as below in the **Tables 4 & 5** respectively.

**TABLE 4- DETAILS OF DECEASED PERSONS**

<b>Sr. No</b>	<b>Name of person</b>	<b>Age (years)</b>	<b>Gender</b>	<b>Weather Employee or Civilians</b>
1	Shri Ilias Bashir Ansari	58	Male	Watchman
2	Smt. Madhuri Vasistha Singh	49	Female	Helper

3	Smt. Rajmatidevi Surendra Yadav	36	Female	Helper
4	Shri Mohan Ingle	55	Male	Technician
5	Shri Trinath Dasri	41	Male	Outsider/Technician- lift maintenance work
6	Smt. Nishu Rahul Singh	24	Female	Family Member of Smt Madhuri Vasistha Singh
7	Shri Golu Surendra Yadav	20	Male	Family Member of Smt Rajmatidevi Yadav
8	Ms Khushi Yadav	13	Female	Family Member of Smt Rajmatidevi Yadav

TABLE 5 DETAILS OF INJURED PERSON

Sr. No	Name of Injured Person	Age (years)	Gender	Weather Employee or Civilians
1	Shri. Natwarlal Patel	58	Male	Director of the factory
2	Shri. Mulayam Yadav	22	Male	Maintenance Worker
3	Shri. Rakesh Kumar	55	Male	Helper
4	Shri. Sachinkumar Yadav	20	Male	Helper
5	Shri. Rohit Singh	19	Male	Family member
6	Ms Prachi Rahul Singh	6	Female	Family Member of Smt Madhuridevi Singh ( deceased)
7	Ma.Rutika Rahul Singh	3	Female	Family Member of Smt Madhuri Vasistha Singh (deceased)

### 7.1 GENERAL MANUFACTURING PROCESS OF OCBA & DETAILS OF THE REACTOR

General manufacturing process of the Ortho Chlorobenzoic Acid (OCBA) and the reactor used for the reaction, are provided as detailed below-

- a) The stainless steel (SS) reactor first cleaned by water.
- b) Proportionate quantity of water is added into SS reactor.
- c) 600 Kg of Nitric acid (58%) is added into reactor.
- d) Proportionate quantity of Ortho-chlorotoluene is added into SS reactor.
- e) This mixture is kept in reactor and steam heating is started through reactor limped coil with continuous stirring to reach at required temperature.
- f) Then limped coil of reactor is drained and cooling water circulation is started through limped coil and continued till next reaction is completed.
- g) Then batch is taken to centrifuge.
- h) Then batch is drained into trays and cools at room temperature.
- i) Finally, OCBA is obtained.

The details of the SS 10 KL reactor used to carry out the process are as follows:

- a) Reactor Type: Stainless Steel Reactor with limped coil and stirrer
- b) Reactor Capacity: 10 KL
- c) Material of construction: Stainless Steel(SS-316)
- d) Length of Reactor: 4960 mm
- e) Internal Diameter of Reactor: 1756 mm
- f) Outer diameter with jacket: 1800mm
- g) Thickness of reactor shell - 22 mm
- h) Reactor bottom outlet: 80 mm
- i) Stirrer Motor: 20 HP/1440 RPM, Make - Crompton, with gear box Make Bonfiglioli, Model AS 90
- j) Top openings of Reactor: 18.11-inch manhole, 25 NB nozzle for temperature sensor, 40 NB nozzle for vent, 50 NB nozzle for HNO<sub>3</sub> charging, 150 NB nozzle for sample collection, 80 NB nozzle for Ortho Chlorotoluene addition.

- k) Limped Coil: Material of construction –SS304, 50 NB 4 number of nozzles for steam In/Out and cooling water In/Out.
- l) Design pressure of reactor – 18 Kg/Cm. Sq.
- m) Working pressure of reactor- 15 Kg/Cm. Sq.
- n) Design temperature of reactor – 180 deg. cent.
- o) Working temperature of reactor – 150 deg. cent.

## **08. ACTION TAKEN BY VARIOUS DEPARTMENTS & UNDER VARIOUS ACTS/RULE**

### **08.1 ACTION TAKEN BY DIRECTORATE OF INDUSTRIAL SAFETY & HEALTH (DISH) UNDER FACTORIES ACT- 1948 AND MAHARASHTRA FACTORY RULES, 1963**

Manufacturing Process of OCBA was being carrying out by using chemicals like Ortho-chlorotoluene (Flash Point- 42 Deg. C) which is highly inflammable in nature, and Nitric Acid (58%) which is corrosive and toxic in nature. Both are hazardous chemicals, hence the provisions of Factories Act, 1948 are applicable to this premises, as per Clause-1 of Schedule-II of Notification no FAC 2088/2048/(997) Lab-4 dated 22nd January, 1993 and the premises constitutes a “Factory” for the purpose of Factories Act 1948.

The factory was manufacturing Ortho-chlorobenzoic Acid which is a drug intermediate and used for manufacturing of bulk drug i.e. Mefanamic Acid. Hence this factory comes under Clause 11 of The First Schedule under Section 2(cb) of the Factories Act, 1948. Also hazardous chemicals such as Nitric Acid and Ortho-chlorotoluene are used in manufacturing of this drug intermediates which can cause material impairment to the health of person engaged in or connected therewith. Hence this is ‘hazardous process’ factory.

Also, the manufacturing process was being carried out in SS reactor with limped coil by circulating steam formed in steam boiler. Chemical reaction inside the reactor was carried out under pressure more than atmospheric pressure. Also in steam boiler, water was getting heated and circulated at more than atmospheric pressure. Hence reactor and steam boiler both are pressure vessel, therefore provisions of Factories Act, 1948 are applicable to this premises, as per Clause-2(g) of Schedule-II of notification no. FAC 2088/2048/(997)Lab-4 dated 22nd January, 1993 and the premises constitutes a "Factory" for the purpose of Factories Act 1948.

DISH has observed following contravention to Factories Act, 1948 and rules specified in Maharashtra Factory Rules, 1963.

**The contraventions of Provision of Factory Act, 1948 and Maharashtra Factories Rule, 1963.:-**

- i) Premises where accident took place is a factory and it is found that, the occupier has not obtained a license under the Factories Act 1948. Thus, the occupier was using the premises as a factory without a valid license under Factories Act 1948 from Chief Inspector of Factories, the occupier has contravened the provisions of **Rule 4 (4) of the Maharashtra Factories Rule, 1963.**
  
- ii) Occupier was using premises as factory without getting plans approved from the Chief Inspector/Deputy Chief Inspector, DISH in respect of the following namely, a) site on which the factory is situated b) building and extensions used for the purposes of manufacturing process, c) the layout of plant and machinery etc. The occupier has contravened the provisions of **Rule 4 (1) (a), 4 (1) (b) and 4 (1) (c) of the Maharashtra Factories Rule, 1963.**

- iii) System of work to put off steam supply manually and starting cooling water into reactor jacket manually without provision of cooling tower for cooling of water and by not providing spring loaded safety valve and rupture disk on reactor or elsewhere in the system which will operate and vent the excess pressure generated in reactor as soon as pressure exceeds the safe working pressure, also there was no automatic cut off device provided on steam supply line to reactor so as to cut off steam supply to reactor in the event of reaching critical pressure and temperature of reactor, which was not safe. Therefore, the occupier has contravened the provisions of the **Section 7-A (2) (a) of the Factories Act-1948.**
  
- iv) The reactor and steam boiler which are "pressure plants" were being used in connection with the manufacturing process on the day of the accident and first time on 09.01.2020 without (a) a certificate specifying maximum safe working pressure and the test to which it was subjected to, is obtained from the maker (b) getting it thoroughly examined by a competent person in the premises where it is used. Provisions of **Rule 65(6)(iii)(a) & (b) of the Maharashtra Factories Rules, 1963,** are, therefore, contravened by the occupier.
  
- v) As per Rule 73-R of the Maharashtra Factories Rules, the occupier of every factory carrying on 'hazardous process' shall furnish, in writing, to the Chief Inspector a copy of all the information furnished to the workers as per Rule 73-N(1), local authority, general public and the District Emergency Authority as per Rule 73-O. But it is found that the occupier of the M/s ANK Pharma Pvt. Ltd, Plot no M-2 has not furnished in writing, to the Chief Inspector a copy of all the information furnished to the workers, local authority, general public and the District Emergency Authority. Hence the occupier of the factory has contravened the provisions of **Rule 73-R(1) of the Maharashtra Factories Rules, 1963.**

In view of the above contraventions, DISH has issued Notice dated 31.01.2020 (**Annexure-X**) and filed two criminal cases (No. 2635/2020 & 2636/2020) with Chief Judicial Magistrate (CJM) Thane.

#### **08.2 ACTION TAKEN BY MAHARASHTRA POLLUTION CONTROL BOARD (MPCB) UNDER THE WATER (P & CP) ACT, 1974 & AIR (P & CP) ACT, 1981**

MPCB conducted site visit dated 12.01.2020 (**Annexure-VII**) based on the information received regarding the blast. MPCB issued closure direction dated 13.01.2020 (**Annexure-XI**), for illegal installation of reactors, thermopack boiler, centrifuge, manufacturing products of sister concern industry i.e. M/s. Alexo Chemicals and negligence towards safety leading to a massive blast.

As per visit report of the MPCB (**Annexure-VIII**), lot of chemicals were also illegally stored in the building which is in the back side of the premises. This another building was having reactor, centrifuge, scrubber and boiler. About 200 barrels (55 kg each) filled with Mefanamic Acid, Container with Di-methyl Formamide and other chemicals Ortho-ChloroToluene, 2-3 Xylidine, Trans-4-aminocyclohexanol were found stored and the records of the these materials were not maintained. It is also mentioned that the product Ortho Chlorobenzoic Acid (OCBA) produced earlier was sent to its sister concern unit M/s Alexo Chemicals, N-174, MIDC Tarapur. This chemical is also imported from China.

#### **08.3 ACTION BY POLICE DEPARTMENT**

Police Department has filed First Investigation Report (FIR) (NO. 0014 of 2020) dated 16.01.2020 against Shri Natwarlal Patel, Director of M/s. Ank Pharma Pvt. Ltd. under the provision of Indian Penal Code (IPC) Section 304(A), 286, 337 and 427. Further, information is not provided to the committee regarding action taken by the Police Department.

#### 08.4 MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION (MIDC)

##### A. Regarding the permission for Building under Development Control Regulations to be regulated by MIDC-

- The original Plot was allotted to M/s Asgar Ali Rokadiya and two others on dated 02/1/1982, and the same was handed over to M/s Tara Nitrate Pvt. Ltd. on 19/09/1984. The Building Completion Certificate (B.C.C) was given to 27/04/1987. This plot was again handed over to M/s ANK Pharma Pvt. Ltd on 24/11/2005. The revised building plan was approved by M/s ANK Pharma Pvt. Ltd on dated 30/10/2014 and B.C.C of same was given on 08/12/2014.
- Plans were not gotten approved and BCC was not obtained in respect of second and third floor construction of the building in which explosion took place. The stop order Notice was issued on dated 03/12/2019 as additional construction was being carrying out without permission.
- After issuing BCC on 08/12/2014 MIDC officers has not inspected the premises even though factory has constructed additional three floors on existing ground plus one floor building measuring the area about 977.46 square meter. They have given stop work order when the building was on the verge on completion i.e. on 03/12/2019. Also after giving stop work order they have not taken any further action for implementation of their order or any legal action as given in their notice.
- MIDC has not taken any action to stop unauthorized construction of the factory. If it would have been stopped then this major mishap would have been avoided. Also even after this major explosion MIDC has not taken any legal action for unauthorized construction of this factory.
- Without obtaining the Occupancy Certificate from MIDC, the occupier of the factory was using premises as a factory.

As per information provided by MIDC, when the stop work order was issued the work of construction was nearing completion. Unless the construction was completely illegal and encroaching on area it shouldn't, MIDC, although empowered under the Maharashtra Regional and Town Planning Act, 1966 to demolish the illegal construction after notice, takes industry friendly approach as most of such units after being aware of the rule submit revised plans which are approved postfacto.

Furthermore, as per MIDC's own policy/circular No. C-68271, dt. 10/09/2013, many plot holders start the construction in anticipation that the building plans which are submitted will be approved postfacto. It is also noticed that, in most of the genuine cases where plans are submitted and pending approval or allottees are not aware of taking the B.C.C all over again for any construction after lease, the construction without prior approval of MIDC is generally within framework of MDC DCR can be approved.

Industries who have applied for development permission and obtained permission for some area and made deviation during the course of construction or have exceeded the sanctioned built up area are required to be treated with some empathy, provided that such construction is within the framework of MIDC DCRs. With this view, the issues faced by industries was discussed in the MIDC Board Meeting on 28/08/2013 and it was decided to issue guidelines for recovering charges for compounding of offences as per section 143 of the MR & TP Act. Further, considering policy of ease of doing business MIDC has issued circular No C 55146 dated 13/07/2017 in which for issuing occupancy certificate only in case of high risk building MIDC inspection is necessary otherwise owner and certified architect will give self-declaration and based on their report occupancy certificate is issued

Hence, as per policy of MIDC there is provision to regularise unauthorised construction if it is in the frame of DCR. In such cases although the industry often starts the construction without prior approval, Special Planning Authority (SPA-MIDC) has no alternative than to serve notice and then to regularise the structures by recovering compounding charges after receipt of such request from the plot holder.

MIDC has issued notices to the plot holder for demolition of unsafe structures vide No. D-95516, dt. 03/12/2019, No. A-17021, dt. 13/01/2020, No. B-11586, dt.21/04/2020, No. B-73548, dt. 24/07/2020.

Now, M/s. ANK Pharma Pvt. Ltd., Plot No. M-2 has carried structural audit for the structures on the plot from M/s. M.P. Prime Structures Pvt. Ltd. a licensed Structural Engineer & submitted report on dt. 31/01/2022. The Structural Engineer has suggested remedial measures & repairing of these structures.

Hence, as per the policy of MIDC, the plot holder can obtain the revised plan approval by paying necessary compounding charges, other statutory charges and regularise the structures within frame of DCR.

**B. Maharashtra Fire Prevention & Life Safety Measures Act, 2006.**

- M/s ANK Pharma Pvt Ltd. is situated in M.I.D.C. area and comes under the Jurisdiction of Divisional Fire office, M.I.D.C, Andheri. Provisional NOC was granted by Divisional Fire officer, Operation M.I.D.C. on dated 08/07/2008 vide letter No. MIDC /Fire/128/08. Revised Provisional NOC was granted by Divisional Fire officer, Operation M.I.D.C. on date 15/09/2012 vide letter No. MIDC/Fire/NOC/2012.

- Without obtaining the NOC from Fire Department, the occupier of the factory was using premises as a factory.

#### **08.5 LABOR DEPARTMENT**

Factory was not registered under Building and Other Construction Workers Act, 1986 even though it was under construction. As Labour department did not get the knowledge about construction of the factory from any other departments the factory remained unregistered

### **09. EXTENT OF DAMAGE TO LIFE, ENVIRONMENT & PROPERTY**

#### **09.1 DAMAGE TO LIFE**

Due to the incident, there is loss of 8 lives (4-Male & 4-Female) and total 7 persons (5-Male & 2-Female) have been injured. Some of the deceased and injured persons were not the employee / worker of the industry but the family members of the worker who were residing in the same building where blast has occurred. There is no loss of life other than persons reported in any reports.

#### **09.2 DAMAGE TO ENVIRONMENT**

During the incident due to blast in the reactor, hazardous chemicals/ material got blown out in the form of emissions to the environment. There is no visible damage to the environment i.e. soil, water due to incident. The relevant air emission data is not available and therefore due to lack of information / data damage assessment could not be carried out.

#### **09.3 DAMAGE TO PROPERTY-**

As reported in the Report of DISH dated 24.01.2020, following damage to properties of the nearby industries have been reported.

- a) Plant and Machinery of M/s ANK Pharma Pvt. Ltd: - In this explosion some of the RCC columns, beams, slabs, security cabin, compound wall & walls of building 1

having area approximately 977.46 sq. meter are damaged. The machineries such as 1 SS reactor, accessories of baby boiler, centrifuge, water pipelines, ETP are damaged in the explosion. Some vehicles parked near main gate are also damaged due to the impact of debris.

- b) M/s Galaxy surfactant Ltd, Plot No-M-3:- compound wall adjacent to M/s. ANK Pharma collapsed due to the explosion. Factory building walls facing plot M-2 side, glass windows of factory building and false ceilings also got damaged in this explosion causing an approximate loss of Rs 51 lakh.
- c) M/s Vikas Chemicals Plot No L-39:- Glass windows, AC sheets roofing and FRP tank was damaged resulting in the release of spend acid of 4 Kl causing an approximate loss of Rs 20,000.
- d) M/s Beekay Tex, Plot No- L-38:- Glass windows and material damage causing an approximate loss of Rs 2 lakh.
- e) M/s Microtech Polytech Pvt Ltd, Plot No- L-60, 61:- Glass windows, AC sheets roofing etc. sustained damage resulting in an approximate loss of Rs 2 lakh.

## **10. COMPENSATION TOWARDS LOSS OF LIVES AND INJURIES AND DAMAGE TO ENVIRONMENT**

### **10.1 COMPENSATION TOWARDS LOSS OF LIVES AND INJURIES:**

Due to the incident, there is loss of 8 lives (4-Male & 4-Female) and total 7 persons (5-Male & 2-Female) have been injured. The information of deceased and injured persons provided by Deputy Labour Commissioner Palghar vide letter 02.06.2022 where details including name of person, age, salary etc., are provided as **Annexure-XII**.

**10.1.1 COMPENSATION PAID TO INJURED PERSONS:**

Injured persons were admitted to Thunga Hospital, Boisar and discharged from hospital after the treatment. The information on nature of injury is provided vide DISH letter dated 13.04.2022 in **Annexure-XIII**.

Medical expenses have been provided by Industry – M/s Ank Pharma Pvt Ltd, and total Rs. 3,00,00/- (Rs three lakhs) have been spent towards medical expenses. The details of medical expenses made are provided in Industry Letter dated 07.04.2022 (**Annexure-XIV**). The industry paid Rs. 50,000/- to two injured person and Rs. 25,000 to one injured persons only out of seven injured persons (**Annexure-XIV**). Proper compensation to injured person by the State Government and Industry is not provided.

**10.1.2 COMPENSATION TO BE PAID TO THE INJURED PERSONS**

The State Govt has not paid any compensation to the injured workers. As per Hon'ble NGT order dated 18.12.2020 (para 15 & 16) in OA No. 274 of 2020, which are reproduced here, and also in similar accident matters/orders of Hon'ble NGT-

*“15. “.....6. ... we assess interim compensation for death to be 15 lacs each (considering multiplier of around 16 and loss of earning of about one lac a year, taking the minimum wage, apart from conventional sums), for grievous injury Rs. 5 lac per person, for other injuries of persons hospitalized Rs. 2.5 lac per person and for displacement at Rs. 25000/- per person.”*

*16. Accordingly, the said scale needs to be applied to the present case. Final compensation may be suggested by the Committee, including for restoration of environment. The industrial unit may deposit appropriate .....*”

As mentioned above, Rs.5 lac in case of grievous injury and Rs. 2.5 lac in case of other injury to be paid to injured (grievous/ minor injury) persons.

Therefore, the injured (grievous and minor) needs to get Rs. 5,00,000/- & Rs. 2,50,000 as interim compensations respectively, and based on the nature of injury/disability certificate further compensation to be provided to them.

#### **10.1.3 COMPENSATION/EX-GRATIA PAID TO DECEASED PERSON:**

The Collector Office/District Magistrate Office, Palghar has released the payment of Rs. 5 Lakh per deceased person to kin of 8 deceased person under the Chief Minister Relief Fund as per letter dated 17.02.2022 from Collector Office, Palghar. The copy of letter dated 17.02.2022 is provided in **Annexure-XV**. The industry has deposited compensation amount to the Court for four deceased persons and given cash amount (different amount) to other four deceased persons including lift technician who came for lift maintenance work during the day of incident. The details are given in letter of Industry which is provided as **Annexure-XIV**. The amount paid by State Government and deposited to the Court /to deceased persons by the Industry is provided in **Table-07 (page 36)**.

#### **10.1.4 COMPENSATION ASSESSMENT BY THE COMMITTEE FOR THE DECEASED PERSONS**

Eight person lost their lives and seven person sustained injuries due to the unfortunate incident on 11.01.2020 due to blast not on account of their act of negligence or while discharging their duties came in contact with machinery or the chemicals, but due to negligent attitude of industry management with reference to use of reactor without safety measures, manufacturing of chemical/bulk intermediate product without permission/consent, construction of building without requisite permission etc.

The committee referred Employee's Compensation Act, 1923 and Hon'ble Supreme Court Cases (Sarla Verma (supra), National Insurance Company Ltd. v. Pranay Sethi, (2017) 16 SCC 680 etc) for assessment of compensation in line with various accident matters dealt

by Hon'ble NGT (orders & committee reports) as mentioned in para 10 of the order dated 20.12.2021 in this present matter (OA No. 19 of 2020).

As per of order of Hon'ble NGT in O.A. No. 85/2020 (Earlier O.A.No.22/2020 [WZ]) (Aryavart Foundation through its President v/s Yashashvi Rasayan Pvt. Ltd &Anr) reads as: "...32. In view of frequent accidents resulting in deaths and injuries, the Chief Secretaries of all the States/UTs may evolve a mechanism to ensure that the companies dealing with hazardous substance must forthwith pay compensation for deaths and injuries to the victims at least as per Workmen Compensation Act, 1923 wherever applicable or the 40 33 principle of restitution laid down in Sarla Verma (supra), National Insurance Company Ltd. v. Pranay Sethi, (2017) 16 SCC 680 to the victims either directly or through the District Magistrate.

**A. COMPENSATION AS PER EMPLOYEE'S COMPENESATION ACT 1923**

As per Employee's Compensation Act 1923 & amendments thereof, the compensation to the deceased persons have been calculated and are provided in the **Table 6**.

**TABLE 6 COMPENSATION AS PER EMPLOYEE'S COMPENSATION ACT 1923 & AMENDMENTS THEREOF**

Sr. no.	Name	Age	Factor as per Employee Compensation Act- 1923 Schedule IV *	Salary as per Notification dated 03/01/2020 #	Compensation Amount
1	Sh. Ilias Bashir Ansari	58	124.7	15000	935250
2	Smt. Madhuri Vasistha Singh	49	156.47	15000	1173525
3	Smt. Rajmatidevi Surendra Yadav	36	194.64	15000	1459800
4	Sh. Mohan Suryabhan Ingle	55	135.56	15000	1016700
5	Sh. Trinath Dasri	41	181.37	15000	1360275

Note:

*\*as per Employee's Compensation Act-1923, Schedule IV*

*# as per Notification S.O.71 (E) dated 03/01/2020 The Central government has changed the amount of wages to be considered for calculation of compensation to workers under the Employee's Compensation Act 1923 vide notification S.O.71 (E) dated January 3, 2020. The amount of wages considered previously for the calculation of compensation was just Rs 8,000. Now, it will be Rs 15,000, according to the notification by the Ministry of Labour and Employment.*

*The computation of compensation under the Act is done as per provisions on Section 4 of the Act:*

1. *In case of accidents resulting in death: an amount equal to fifty per cent. of the monthly wages of the deceased multiplied by the relevant factor; or an amount of Rs 1,20,000, whichever is more;*

#### **B. COMPENSATION AS PER HON'BLE SUPREME COURT CASES**

The committee referred following Hon'ble Supreme Court Cases for assessment of compensation with different components, in line with various accident matters dealt by Hon'ble NGT (orders & committee reports) as mentioned in para 10 of the order dated 20.12.2021 in this matter.

- Hon'ble Supreme Court of India, Sarla Verma & Ors vs Delhi Transport Corp.& Anr on **15 April, 2009**, Author: R.V.Raveendran, J Bench: R.V. Raveendran, J Lokeshwar Singh Panta J, CIVIL APPELLATE JURISDICTION CIVIL APPEAL NO 3483 OF 2008(Arising out of SLP [C] No.8648 of 2007
- Supreme Court of India Amrit Bhanu Shali & Ors vs National Insurance Co. Ltd. & Ors on **4 April, 2012** Author: J. Bench: G.S. Singhvi, Sudhansu Jyoti Mukhopadhaya REPORTABLE IN THE SUPREME COURT OF INDIA CIVIL APPELLATE JURISDICTION CIVIL APPEAL NO. 3397 OF 2012 (ARISING OUT OF SLP(C) NO.27751 OF 2011)

- Hon'ble Supreme Court of India, National Insurance Co. Ltd vs Pranay Sethi **on 31 October, 2017**, Author: M. Dipak CJI, Bench-. CJI. (Dipak Misra ) J. (A.K. Sikri ) J. (A.M. Khanwilkar ) J. (Dr. D.Y. Chandrachud ) J. (Ashok Bhushan ) New Delhi; , CIVIL APPELLATE JURISDICTION SPECIAL LEAVE PETITION (CIVIL) NO. 25590 OF 2014 with other Civil Appeals & Special Leave Petitions
- Hon'ble Supreme Court of India, Sunita Tokas vs New Inda Insurance Co. Ltd. **on 16 August, 2019** Author: Hon'Ble Ms. Malhotra,J Bench: Hon'Ble Ms. Malhotra J, Sanjiv Khanna, J, CIVIL APPELLATE JURISDICTION, CIVIL APPEAL NO. 6339 OF 2019(Arising out of SLP (Civil) No. 2859 of 2018)
- *As per para 5 of Judgement in case- Hon'ble Supreme Court of India, Sunita Tokas vs New Inda Insurance Co. Ltd. on 16 August, 2019 Author: Hon'Ble Ms. Malhotra,J Bench: Hon'Ble Ms. Malhotra J, Sanjiv Khanna, J, CIVIL APPELLATE JURISDICTION, CIVIL APPEAL NO. 6339 OF 2019(Arising out of SLP (Civil) No. 2859 of 2018) .....5. In light of the aforesaid discussion, the compensation awarded to the Appellants is being enhanced as follows:*

<i>Income</i>	: <i>12,000/ PM</i>
<i>Future Prospects</i>	: <i>4,800/ (i.e. 40% of the income)</i>
<i>Deduction towards personal expenses</i>	: <i>50%</i>
<i>Total income</i>	: <i>8,400/ (i.e. 50% of 12,000 + 4,800)</i>
<i>Multiplier</i>	: <i>18</i>
<i>Loss of future income</i>	: <i>18,14,400/ (i.e. 8,400 x 12 x 18)</i>
<i>Loss of love and affection</i>	: <i>Rs. 2,00,000/</i>
<i>Loss of estate and funeral expenses</i>	: <i>Rs. 50,000/</i>
<i>Total</i>	: <i>Rs. 20,64,400/</i>

- The factors considered for assessment of compensation in the present case is described as below.

i. **Monthly salary/Income of the deceased person**

Permanent employee- as per the information provided by District Administration/Industry for Lab technician/helper -monthly salary or total monthly wages as per information provided by Govt Labour Officer, Pune as per Govt of Maharashtra, whichever is higher.

ii. **Addition to Income for Future prospects**

*We referred following paragraphs of National Insurance Co. Ltd vs Pranay Sethi on 31 October, 2017 IN THE SUPREME COURT OF INDIA, CIVIL APPELLATE JURISDICTION SPECIAL LEAVE PETITION (CIVIL) NO. 25590 OF 2014 National Insurance Company Limited Petitioner(s) Versus Pranay Sethi and Ors. Respondent(s).*

*61. In view of the aforesaid analysis, we proceed to record our conclusions: -*

*(i) The two-Judge Bench in Santosh Devi should have been well advised to refer the matter to a larger Bench as it was taking a different view than what has been stated in Sarla Verma, a judgment by a coordinate Bench. It is because a coordinate Bench of the same strength cannot take a contrary view than what has been held by another coordinate Bench.*

*(ii) As Rajesh has not taken note of the decision in Reshma Kumari, which was delivered at earlier point of time, the decision in Rajesh is not a binding precedent.*

*(iii) While determining the income, **an addition of 50% of actual salary to the income of the deceased towards future prospects, where the deceased had a permanent job and was below the age of 40 years, should be made. The addition should be 30%, if the age of the deceased was between 40 to 50 years. In case the deceased was between the age of 50 to 60 years, the addition should be 15%. Actual salary should be read as actual salary less tax.***

*(iv) In case the deceased was self-employed or on a fixed salary, an addition of 40% of the established income should be warranted where the deceased was below the age of 40 years. An addition of 25% where the deceased was between the age of 40 to 50 years and 10% where the deceased was between the age of 50 to 60 years should be regarded as the necessary method of computation. The established income means the income minus the tax component.*

*(v) For determination of the multiplicand, the deduction for personal and living expenses, the tribunals and the courts shall be guided by paragraphs 30 to 32 of Sarla Verma which we have reproduced hereinbefore.*

*(vi) The selection of multiplier shall be as indicated in the Table in Sarla Verma read with paragraph 42 of that judgment.*

iii. **Deduction for personal and living expense**

The committee has considered following criteria referring the judgement order of *Sarla Verma & Ors Vs. Delhi Transport Corporation & Anr.*, Para 14, “Having considered several subsequent decisions of this court, we are of the view that where the deceased was married, the deduction towards personal and living expenses of the deceased, should be one-third (1/3rd) where the number of dependent family members is 2 to 3, one-fourth (1/4 th) where the number of dependent family members is 4 to 6, and one-fifth (1/5 th) where the number of dependent family members exceed six” and para15 “Where the deceased was a bachelor and the claimants are the parents, the deduction follows a different principle. In regard to bachelors, normally, 50% is deducted as personal and living expenses, because it is assumed that a bachelor would tend to spend more on himself.....”,

iv. **Multiplier**

Multiplier considered as per para 44 of Judgment in the case- Hon’ble Supreme Court of India, *National Insurance Co. Ltd vs Pranay Sethi* on 31 October, 2017,

Author: M. Dipak CJI, Bench-. CJI. (Dipak Misra ) J. (A.K. Sikri ) J. (A.M. Khanwilkar ) J. (Dr. D.Y. Chandrachud) J. (Ashok Bhushan ) New Delhi; CIVIL APPELLATE JURISDICTION SPECIAL LEAVE PETITION (CIVIL) NO. 25590 OF 2014 with other Civil Appeals & Special Leave Petitions.

44. *As far as the multiplier is concerned, the claims tribunal and the Courts shall be guided by Step 2 that finds place in paragraph 19 of Sarla Verma read with paragraph 42 of the said judgment. For the sake of completeness, paragraph 42 is extracted below:-*

42. *We therefore hold that the multiplier to be used should be as mentioned in Column (4) of the table above (prepared by applying Susamma Thomas, Trilok Chandra and Charlie), which starts with an operative multiplier of 18 (for the age groups of 15 to 20 and 21 to 25 years), reduced by one unit for every five years, that is M-17 for 26 to 30 years, M- 16 for 31 to 35 years, M-15 for 36 to 40 years, M-14 for 41 to 45 years, and M-13 for 46 to 50 years, then reduced by two units for every five years, that is, M-11 for 51 to 55 years, M-9 for 56 to 60 years, M-7 for 61 to 65 years and M-5 for 66 to 70 years.*

**v. Loss of love and affection and loss of Estate and Funeral Expenses-**

The committee considered the para 5 of latest judgement in case Sunita Tokas vs New India Insurance Co. Ltd. on 16 August, 2019 out of four cases for the Loss of love & affection Rs.2,00,000/- & loss of Estate & funeral Expenses- Rs. 50,000/-

**COMPUTATION OF COMPENSATION-**

(Income per month (considering the total monthly/daily wages applicable in the state of Maharashtra, or income per month whichever is higher) + Income for Future prospects – Deduction for personal and living expense) x 12 months = Yearly compensation x Multiplier = Loss of Future Income + loss of love & affection + Loss of estate & funeral expenses= Total Compensation

Considering the above methodology and the information regarding deceased person- name, age, salary etc from Deputy Labour Commissioner, Palghar/Collector Office & Industry (**Annexure-XII**), the committee assessed compensation for the deceased persons which is provided as **Annexure-XVI**.

The committee has assessed the compensation for the deceased workers/employee engaged by the industry and outside industry including worker/technician- Shri Trinath Dasari who came for Lift maintenance on day of incident. The ex-gratia/compensation is paid to him by State Govt under CM Relief Fund and the industry has paid Rs. 25,000/- to him which is not adequate.

Thus, compensation as per assessment of committee considering Employee's Compensation Act, Hon'ble SC cases and ex-gratia/compensation paid by State Govt and deposited in the Court/ paid by the industry) to the kin of each deceased person are tabulated in following **Table-7**. **The committee recommended for the additional compensation to be paid to the kin of deceased person which is mentioned in the Table-7.**

**Table-7 COMPENSATION AS PER ASSESSMENT OF COMMITTEE CONSIDERING EMPLOYEE'S COMPENSATION ACT, HON'BLE SC CASES AND EX-GRATIA/COMPENSATION PAID BY STATE GOVT, DEPOSITED IN THE COURT & PAID BY INDUSTRY TO THE KIN OF EACH DECEASED PERSON**

Sr.No	Name	Age	Compensation deposited in Court/ paid by the industry	Compensation paid by GoM under Chief Minister Relief Fund	Compensation/Ex-gratia paid	Compensation as per Employee Compensation Act-1923	Compensation assessed by committee wrt Hon'ble Supreme Court Orders/Judgment	Additional Compensation to be paid
			A	B	C=A+B	D	E	F=E-C
1	Shri Mohan Ingle	55	10,16,700	5,00,000	15,16,700	10,16,700	24,76,400	9,59,700
2	Shri Ilias Bashir Ansari	58	6,97,073	5,00,000	11,97,073	9,35,250	12,79,600	82,527
3	Smt. Madhuri Vasistha Singh	49	8,00,000	5,00,000	13,00,000	11,73,525	17,71,000	4,71,000
4	Smt. Rajmatidevi Surendra Yadav	36	1,40,000	5,00,000	6,40,000	14,59,800	23,56,000	17,16,000
5	Shri Trinath Dasri	41	25,000	5,00,000	5,25,000	13,60,275	19,21,040	13,96,040
6*	Smt Nishu Rahul Singh	24	3,00,000	5,00,000	8,00,000	-	-	
7#	Shri Golu Surendra Yadav	20	50,000	5,00,000	5,50,000	-	-	
8#	Smt. Khushi Yadav	13	50,000	5,00,000	5,50,000	-	-	

Note: \* family member of Smt. Madhuri Vasistha Singh # Family members of Smt. Rajmatidevi Surendra Yadav who were residing in the building where blast occurred.

## 10.2 COMPENSATION TOWARDS DAMAGE TO ENVIRONMENT

During the incident due to blast, chemicals blow out and emissions spread to the environment. There was no fire due to blast in the reactor. However, the relevant air emission data is not available and therefore damage assessment could not be carried out due to lack of information/data. There appears to be no visible damage to the environment i.e. soil, water due to incident.

However, Industry was engaged in the process of making drug intermediate like Ortho Chlorobenzoic Acid (OCBA) with raw materials- Ortho Chlorotoluene (99.5%) and Nitric Acid (58%), as reported on trial basis, but not having any permission, and also the said product is not mentioned in the Consent and EC.

Also various contraventions of provisions under Factory Acts have been reported. Eight person lost their lives and seven person sustained injuries due to the unfortunate incident on 11.01.2020 due to blast not on account of their act of neglect or while discharging their duties came in contact with machinery or the chemicals but due to negligent attitude of industry management with reference to use of reactor without safety measures, manufacturing of chemical/bulk intermediate product without permission/consent, construction of building without requisite permission etc.

The committee referred to various orders/judgments enumerated, in the judgment of Hon'ble NGT which is pronounced and uploaded on 24.01.2022 in the matter OA No. 64 of 2016 (Akhil Bhartiya Mangela Samaj Parishad & Anr Vs MPCB & Ors), for the environmental compensation/ damage towards the environment based on turnover of the defaulters, project cost and other methodologies adopted.

The relevant paras of the judgment are reproduced below-

.....

*194. The issue relating to damages/compensation and further remedial or restorative action for the degradation/loss/damage caused to environment is largely governed by judicial precedents of Apex Court which has acted as a champion for protection of environment in the last almost four decades having considered various activities causing degradation/damage to environment in multi-various manner. It would be appropriate to have a quick retrospect of such authorities which will be relevant and prove to be a useful guide as also binding precedent for answering questions relating to protection of environment, determination of environmental compensation, further direction necessary for remediation/restoration of environment and also to ensure that no further violation of environmental laws takes place.*

The committee found appropriate to use the Hon'ble SC order in the matter- CIVIL APPEAL NO. 10854 OF 2016 M/S. GOEL GANGA DEVELOPERS INDIA PVT. LTD. Versus UNION OF INDIA THROUGH SECRETARY MINISTRY OF ENVIRONMENT AND FORESTS & ORS. With CIVIL APPEAL NO. 10901 OF 2016 CIVIL APPEAL NO. 5157-5158 OF 2018, where damage imposed is 10% of the project cost.

**As mentioned in the CTO issued by MPCB, the capital investment of the project is Rs. 2.17 Crore, and therefore 10 % of this project cost i.e. Rs 21.7 lakhs may be imposed as damage cost to the industry.**

## **11.0 OBSERVATIONS OF COMMITTEE ON THE ISSUES TO BE CONSIDERED AS MENTIONED IN THE ORDER OF HON'BLE NGT DATED 20.12.2021**

### **11.1 Compliance of MSIHC Rules, 1989/ Accidents (Emergency Planning, Preparedness, and Response) Rules, 1996**

*"Whether there is failure to comply the Manufacture, Storage & Import of Hazardous Chemical Rules, 1989 Accidents (Emergency Planning,*

*Preparedness, and Response) Rules, 1996, under the EP Act, 1986 on the subject of safety norms in the course of manufacturing hazardous chemicals. The 1989 Rules inter alia require preparation of On-site and Off-site Emergency Plans, holding of mock drills, safety audits periodically and to maintain safety norms during operation.”*

The raw materials, in the reactor during the blast, were Ortho Chlorotoluene (99.5%) and Nitric Acid (58 %) for manufacturing of drug intermediate Ortho Chlorobenzoic Acid (OCBA). These raw material and products were not mentioned in the consent and also EC.

The raw material chemical -Ortho-chlorotoluene (Flash Point- 42 Deg. C) is highly inflammable in nature, and Nitric Acid (58%) which is corrosive and toxic in nature. Both are hazardous chemicals, hence the provisions of Factories Act, 1948 are applicable to this premises, as per Clause-1 of Schedule-II of Notification no FAC 2088/2048/(997) Lab-4 dated 22nd January, 1993 and the premises constitutes a “Factory” for the purpose of Factories Act 1948.

The industry was making production illegally, though reported as trial production, and using Nitric Acid which is mentioned part-II of Schedule-1 in MSIHCRules and "industrial activity" where process (n) nitration was being carried out in an industrial installation referred to in Schedule 4 of this Rule. Ortho-chlorotoluene (Flash Point- 42 Deg. C) is highly inflammable in nature, and Nitric Acid (58%) which is corrosive and toxic in nature and meeting with properties of chemicals given in part-I in Schedule-1 of MSIHCRules 1989. Therefore, the MSIHCRules are applicable.

The products mentioned in the EC issued by SEIAA are Poridone-Iodine, Piroxicalm. Phenyl Propanol Amine-HCL, Nalidixin Acid, Cholorosoxazone, Phenyl Ephrine HCL and the raw materials for these products are mentioned (as per Consent Application available with MPCB) in the **Table-08**

**TABLE- 08 RAW MATERIALS AND PRODUCTS USED DURING THE BLAST AND AS PER COSNSENT APPLICATION, CONSNET TO OPERATE AND ENVIRONMENTAL CLEARANCE**

Sr. No.	Particulars	Quantity (MT/M)	Sr. No. of Chemical as per list of chemicals Part-II Schedule-1 of MSIHC Rules, 1989
<b>A</b>	<b>RAW MATERIALS USED DURING BLAST INCIDENT</b>		
1	Ortho-Chlorotoluene	-	Not Listed
2	Nitric Acid	-	423
<b>B</b>	<b>PRODUCTS FORMED DURING BLAST INCIDENT</b>		
1	Ortho Chlorobenzoic Acid	-	Not Listed
<b>C</b>	<b>RAW MATERIALS AS PER CONSENT APPLICATION /EC</b>		
1	Povidone	1.61	Not listed
2	Iodine	0.39	323
3	4-Chloroamino Phenol	0.7	Not listed
4	Urea	1.4	Not listed
5	Acetic Acid	0.32	2
6	Methanol	8.79	Not listed
7	Isopropyl Alcohol	0.6	334
8	Sodium Nitrite	0.215	Not listed
9	Sulphuric Acid	0.05	591
10	Raney Nickel	0.12	Not listed
11	Carbon	0.035	Not listed
12	Toluene	1.5	628
13	Isopropyl Chloroacetate	0.52	Not listed
14	Dimethyl Sulphate	0.35	Not listed
15	Carbon	0.008	Not listed
16	Carbon	0.001	Not listed
17	Propiophenone	0.5	Not listed
18	2- Amino Pyridine	0.275	Not listed
19	Ethyl Methyl Malonic Ester	0.22	Not listed
20	6-Amino Picoline	0.3	Not listed
21	Diphenyl Oxide	0.3	Not listed
22	Tartaric Acid	0.275	Not listed
23	Sodium Saccharin	0.7	Not listed
24	Acetic Anhydride	0.401	3
25	DMF	0.92	Not listed
26	2- Ethyl Bromide	0.125	Not listed
27	Liq Ammonia	0.2	Not listed

28	Acetone	0.32	4
29	Bromo Hydroxyl Penyl Ethanoate	0.274	Not listed
30	Sulphuric Acid	0.065	591
31	Carbon	0.014	Not listed
32	Palladium On Carbon	0.071	Not listed
33	Liq Ammonia	1.012	Not listed
34	Isopropyl Alcohol	1.292	334
35	Methanol- HCL	0.076	Not listed
<b>D</b>	<b>Products as per Consent/EC</b>		
1	Povidone Iodine	2	Not listed
2	Piroxicalm	0.7	Not listed
3	Phenyl Propanol Amine - HCL	0.5	Not listed
4	Nalidixin Acid	0.3	Not listed
5	Chlorosoxazone	0.7	Not listed
6	Phenyl Ephrine-HCL	0.1	Not listed

As per above **Table-08**, it can be inferred that Iodine, Acetic acid, Isopropyl Alcohol, Sulphuric Acid, Toluene, Acetic Anahydride and Acetone are chemicals listed Part-II Schedule-1 of MSIHC Rules, 1989. **However, these chemicals are not listed in Part-I Schedule-3 of MSIHC Rules, 1989 and for Threshold quantity specified in the column 3 & 4 of schedule 3 MSIHC, Rule 1989.**

As per the Sub-rule 1 of Rule 6 of MSIHC Rules, 1989 "Rules 7 to 15 shall apply to - (a) an industrial activity in which there is involved a quantity of hazardous chemical listed in Column 2 of Schedule 3 which is equal to or more than the quantity specified in the entry for that chemical in Column 3 & 4 (Rules 10-12 only for Column 4); and (b) isolated storage in which there is involved a quantity of a hazardous chemical listed in Column 2 of Schedule 2 which is equal to or more than the quantity specified in the entry for that chemical in Column 3 [3 & 4 (rules 10-12 only for column 4)].

Therefore Rules 7 to 15 of said MSIHC Rule are not applicable to the industry. The Rules 7 to 15 of the said Rules are:

7. Approval and notification of sites
8. Updating of the site notification following changes in the threshold quantity –
9. Transitional provisions
10. Safety Reports and Safety audit reports–
11. Updating of reports under rule 10
12. Requirement for further information to be sent to the authority –
13. Preparation to on-site emergency plan by the occupier –
14. Preparation of off-site emergency plan by the authority –
15. Information to be given to persons liable to be affected by a major accident –

#### **11.2 ENVIRONMENTAL CLEARANCE (EC) FOR PROJECT/INDUSTRY**

*“Whether the project in question is to be treated as Category ‘A’ requiring EC from the MoEF&CC. It falls under Entry 5(f) of the Schedule to the EIA Notification dated 14.09.2006. In view of general condition appended to the said schedule if the project is located in critically polluted areas, it becomes category A project. In that case, operation of the unit without requisite EC from MoEF&CC, merely based on EC by SEIAA may amount to violation of law.”*

The Industry has obtained Environment Clearance (EC) from State Environmental Impact Assessment Authority (SEIAA) vide letter No. SEAC/2010/CR 654/TC.2 dated 07.06.2011 for new bulk drug unit (of total capacity 4.3 MT/month) and the same was re-validated vide letter dated 20.12.2018 for a period up to 05.06.2023.

SEIAA, Maharashtra granted Environmental Clearance (EC) for the establishment of Bulk Drug Unit with production capacity of 4.3 MT/month. The project category falls under 5 (f) of schedule of EIA Notification 2006. Category 5 (f) consists of Synthetic organic chemicals industry projects.

Project located outside the notified industrial area/ estate comes under Category A and project located in notified industrial area/ estate comes under Category B.

Further, as per the General Condition mentioned under Schedule of EIA Notification 2006 *“Any project or activity specified in Category ‘B’ will be treated as Category A, if located in whole or in part within 10 km from the boundary of: Critically Polluted areas as notified by the Central Pollution Control Board from time to time.”*

MoEF&CC vide Office Memorandum (OM) dated 13.01.2010 issued a list of critically polluted areas based on Comprehensive Environment Pollution Index (CEPI) score which included the Tarapur. As per the OM, moratorium was imposed for consideration of the projects in the critically polluted areas. However, vide OM dated 26.10.2020, the moratorium was lifted from Tarapur area. This OM further states that *“The EACs/SEACs will take extra precaution during appraisal of project to be located in these areas and prescribe the requisite stringent safeguard measures, so that the environmental quality is not deteriorate further in these areas”*. This reveals that Category ‘A’ will be appraised by EACs and Category ‘B’ by SEACs. However, Ministry vide Office Memorandum dated 28.04.2011 (which was issued prior to the issuance of EC to the project) clarified that *“projects to be located within 10 kms from the latest list of the critically polluted areas as identified by CPCB would attract the General Condition of EIA Notification 2006 and therefore such projects would need to be treated as Category ‘A’ projects.*

In view of the above, it is opined that the project supposed to have been appraised by EAC of MoEF&CC. However, the project was appraised at State Level by State Expert Appraisal Committee (SEAC) and SEIAA issued EC. SEIAA Maharashtra should have forwarded the Application to MoEF& CC for appraisal as Category A project.

## 12.0 CONCLUSIONS

12.1 Based on the Hon'ble NGT aforesaid order, the present report records the key aspects of a major chemical accident that occurred on 11<sup>th</sup> January 2020 evening in the form of a reactor explosion that took place at M/s. Ank Pharma Pvt. Ltd., Plot No. M-2, MIDC Tarapur Industrial Area, Boisar (W), Dist Palghar, which claimed the life of 8 persons, and another 7 sustained various degrees of injury. The immediate physical cause of the accident was reactor explosion due to uncontrolled reaction, which was precipitated by a combination of failure to adhere to basic engineering design requirements and standards as well as faulty operation. The root causes were identified to be human errors which issued out of a management failure to recognize the need for due diligence to be exercised in both engineering design and operation, which constitute a serious act of negligence.

12.2 The Industry was engaged in the process of making drug intermediate like Ortho Chlorobenzoic Acid (OCBA) with raw materials- Ortho Chlorotoluene (99.5%) and Nitric Acid (58%), as reported on trial basis, but no necessary permissions/plan approvals had been obtained from DISH, MIDC and also the said product was not mentioned in the Consent and EC. There was illegal installation of reactors, thermopacks, centrifuge and the industry was manufacturing products of sister concern industry i.e. M/s. Alexo Chemicals.

12.3 As noted above, 8 persons faced fatality and another 7 persons were injured due to the accident. The Collector Office, Palghar has released the payment of Rs. 5 Lakh per deceased person to kin of 8 deceased person under the Chief Minister Relief Fund in the month of February 2020. The industry has deposited compensation amount to the Court for four deceased persons and given cash amount (different amounts)

to other four deceased persons including lift technician who come for lift maintenance work during the day of incident. The details of the above are given in **Table-07**.

- 12.4 The committee assessed the compensation considering Employee's Compensation Act, Hon'ble SC cases for the deceased workers/employee engaged by the industry and outside industry including worker/technician- Shri Trinath Dasari who came for Lift maintenance on day of incident. It is to be noted that ex-gratia/compensation of Rs. 5 lakhs by State Govt under CM Relief Fund and Rs. 25,000/- by the industry paid for him which is not adequate.

Compensation as per assessment of committee considering Employee's Compensation Act, Hon'ble SC cases and ex-gratia/compensation paid by State Govt and deposited in Court/ paid by the industry to the kin of each deceased person are tabulated in **Table-7**. **The assessed compensation is more than the total compensation paid by the State Govt and deposited in the Court/paid by the Industry and therefore, the committee recommended to consider to pay the additional compensation to the kin of deceased person as shown in the Table-7.**

- 12.5 The injured persons were admitted to Thunga Hospital Boisar and total Rs. 3,00,00/- (Rs three lakhs) have been spent towards medical expenses by the Industry. The industry paid Rs. 50,000/- to two injured persons and Rs. 25,000 to one injured person only out of seven injured persons. The State Govt has not paid any compensation to the injured workers/persons and industry also paid very meagre amount to the three injured persons out of seven.

**Therefore, refereeing Hon'ble NGT order dated 18.12.2020 (para 15 & 16) in OA No. 274 of 2020, and other accident related orders, the injured (grievous & minor) persons need to get Rs 5 lac and Rs 2.5 lac**

**as interim compensations respectively, and based on the nature of injury/disability certificate further compensation may be provided to them by Industry through District Administration.**

- 12.6 During the incident due to blast, chemicals in the reactor blow out and emissions spread to the environment. There was no fire due to blast in the reactor. However, the relevant air emission data is not available and therefore evaluation of damage to the air environment could not be carried out due to lack of information/data. There appears to be no visible damage to the environment i.e. soil, water due to incident.

However, considering the non-compliance of provisions under Environmental Acts i.e. manufacturing of product which was not in the Consent & EC and operation without due government license/persimmons (DISH, MIDC, labour Department), the committee refereed various orders/judgments enumerated, in the judgment of Hon'ble NGT which is pronounced and uploaded on 24.01.2022 in the matter OA No. 64 of 2016 (Akhil Bhartiya Mangela Samaj Parishad & Anr Vs MPCB & Ors), for the environmental compensation / damage towards the environment based on turnover of the defaulters, project cost and other methodologies adopted.

The committee has found appropriate to use the Hon'ble SC order in the matter- CIVIL APPEAL NO. 10854 OF 2016 M/S. GOEL GANGA DEVELOPERS INDIA PVT. LTD. Versus UNION OF INDIA THROUGH SECRETARY MINISTRY OF ENVIRONMENT AND FORESTS & ORS. With CIVIL APPEAL NO. 10901 OF 2016 CIVIL APPEAL NO. 5157-5158 OF 2018, for imposing damage cost/compensation which is 10% of the project cost. Accordingly, Rs 21.7 lakhs (i.e. 10 % of this project cost-capital investment Rs. 2.17 Crore as per CTO issued by MPCB) may be imposed as damage cost to the industry.

12.7 There was damage to the building of the industry where blast occurred and also nearby properties as listed in **para 9.3**. The debris and other structure have been removed as observed during the visit.

12.8 Owing to various non-compliances observed and enlisted, as above in foregoing sections of the reports of different departments have initiated action taken/filed case against industry/owner for violations of various applicable provisions under Acts/Rules such as Factories Acts 1948, Water (P & CP) Act 1974 & Air (P & CP) Act 1981, HOW (M & TM) Rules 2016, Police FIR under IPC Section 304 A , 283, 337 & 427.

Based on the findings of the present investigation, a set of future remedial measures and select general recommendations for systemic improvement in respect of all other similar factories in the region have been formulated.

### **13. RECOMMENDATIONS:**

- Actions against the owner of the industry should be expedited by respective departments for the various non-compliances of provisions under the Rules/Acts as detailed in **para 08.0**.
- Damage cost of Rs 21.7 lakhs (Rs. Twenty-one lac seventy thousand only) may be imposed and recovered from the industry in view of non-compliance of provisions under Environmental Acts i.e. operation without consented product, without necessary permissions/Plan approvals from DISH, MIDC and also the said product was not mentioned in the Consent and EC, illegal installation of reactors, thermopack boiler and centrifuge.
- It is recommended to consider to pay the additional compensation to the kin of deceased person as shown in the **Table-7**, as the assessed

compensation by the Committee is more than the total compensation paid by the State Govt under CM Relief Fund and deposited in the Court/paid by the Industry.

- It is recommended to consider to pay Rs 5 lac and Rs 2.5 lac as interim compensations to the injured (grievous & minor) persons respectively refereeing Hon'ble NGT order dated 18.12.2020 (para 15 & 16) in OA No. 274 of 2020, and other accident related orders. Further, based on the nature of injury/disability certificate, compensation may be provided to them by Industry through District Administration.

#### **14. SUGGESTED REMEDIAL MEASURES**

This section outlines a set of plausible remedial measures and recommendation to avoid similar accidents in future in respect of the factory under consideration. They are enumerated as below-

- a. The industry need to restructure the design and operation of all manufacturing processes executed within the organization and ensure that they are fully compliant with requisite engineering and related industry standards. In addition, all required safety features must be integrated in the design of all manufacturing operations. Prior to re-start of the operation these adopted measures may be audited and certified by third-party consultants and competent authority.
- b. The industry also needs to employ persons with the required engineering background and skill to apprehend all associated technical and safety requirements of the manufacturing processes.
- c. The minimum possible hazardous raw materials may be brought to the production area. There is also the need to ensure and after completion of the production process the product is transferred to a separate storage area so that there is no accumulation of hazardous materials in the production area.

- d. Flameproof fittings shall be used where highly flammable liquids or other materials are used/handled/stored/processed.
- e. MSDS of Chemicals used shall be displayed in work area in the language understood by the concerned workers. Compatibility of chemical storage shall be checked as per MSDS of the chemical.
- f. In the event of any maintenance and / or repair activity which can affect the normal functioning of all/any equipment, all related equipment shall be shut down. Only when the maintenance activity is concluded satisfactorily and the necessary repair is undertaken should all other equipment be operated.
- g. During all maintenance/repair and normal operation a competent person with the requisite experience must be present at site. The same or additional person also need be available to manage any abnormality or emergency arising during operation.
- h. If there is any change in production process the necessary approval from all concerned departments shall be obtained.
- i. Periodic training of worker on normal and emergency management shall be conducted.
- j. The workers/labor and family members should not live in the premises under any circumstances. Necessary checks and periodical inspection of industries may be carried out by Labour Department of State Govt.
- k. Appropriate degree of co-ordination between the various concerned government agencies needs to be ensured so that all necessary compliances that need to be achieved by the industry in question are tracked and verified. The authorities need to be approached in appropriate order: District Administration, District Industries Centre, State Electricity Board, State Pollution Control Boards and Department of Industrial Safety and Health (DISH). On receiving any application from a prospective industry all agencies need to become informed simultaneously. An online portal may be developed to enable this information sharing.

- i. Provisions for fire prevention and fighting are more rigorous and hence updated in the Maharashtra Fire Prevention and Life Safety Measures Act, 2006 than provisions of Factories Act- 1948. Therefore, any manufacturing in a factory dealing with hazardous materials shall not be permitted unless final “No Objection” certificate is issued by respective authorities under said act.
- m. Approvals for establishment of an industrial unit shall be granted in the appropriate sequence as deemed fit by State Govt with considerations/view from all concerned department and necessary provisions under Rules/Act so as to ensure all necessary compliances: Consent to Establishment / Provisional Fire NOC / Plan Approval from DISH / Approval of Layout Drawing by local Planning Authority (such as Industrial Development Corporation and Regional Development Authority) / Plan approval by FDA (In case of Pharmaceutical and Food processing units). Drawing approval by PESO (If applicable) can occur in parallel. For allowing production to commence Consent to Operate followed by final Fire NOC, PESO approvals, FDA approval if applicable and finally license by DISH must be secured. Also, intimation need be given to ESIC and PF authorities for enrolment of workers for social security facilities.
- n. MPCB, DISH, MIDC and other concern/related departments are presently working with less manpower of sanctioned post. This situation renders regulatory enforcement difficult and inefficient by the relevant enforcement departments. It is suggested that the Government of Maharashtra takes the necessary steps to recruit the necessary number of officers and also ensure their empowerment.

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Item No. 06

(Court No. 1)

**BEFORE THE NATIONAL GREEN TRIBUNAL  
SPECIAL BENCH**

(By Video Conferencing)

Original Application No. 19/2020(WZ)

Sayyed Mohammed Sabir Usman

Applicant

Versus

Member Secretary, CPCB & Ors.

Respondent(s)

Date of hearing: 20.12.2021

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON  
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER  
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER  
HON'BLE DR. ARUN KUMAR VERMA, EXPERT MEMBER**

Applicant: Mr. Mr. Nitin Lonkar, Advocate

Respondent(s): Mr. Aniruddha S.Kulkarni, Advocate for R-1.  
Ms. Mansi Joshi, Advocate for R-3.  
Ms. Shayanmali Gadre, Advocate for R-4 (MIDC).  
Mr. R. Mahabal, Advocate for R-7

**ORDER**

1. Grievance in this application is against operation of respondent no. 8, M/s. Ank Pharma Pvt. Ltd., Plot No. M-2, MIDC Tarapur Industrial Area, Boisar (W), Palghar, District Palghar (which is one of the polluted industrial clusters), Maharashtra, the Project Proponent (PP) in violation of environmental and safety norms, resulting in a blast on 11.1.2020 leading to the death of eight workers and injuries to seven workers. Further grievance is against inaction of statutory Authorities in taking remedial action.

2. Case set out in the application that the PP was granted Consent to Establish on 24.03.2008 and Consent to Operate on 02.01.2020. It is engaged in manufacture of pharmaceutical products in bulk. Environmental Clearance (EC) was granted by SEIAA, Maharashtra on 07.03.2011, which was revalidated by SEIAA on 20.12.2018. On 11.01.2020, a blast took place in the said unit, resulting in death of eight workers and injuries to seven workers. News item to that effect was published in 'The Hindu'. Field Officer of the State PCB visited the site and noted huge quantity of hazardous material as per visit report dated 12.01.2020. This was followed by closure direction dated 13.01.2020. A case under Section 304 A of IPC has been registered for causing death by negligence. The unit is operating in violation of Air (Prevention & Control of Pollution) Act, 1981, Water (Prevention & Control of Pollution) Act, 1974 and Environment (Protection) Act, 1986.

3. The application was filed on 13.03.2020. On 02.07.2020, the Tribunal issued notice and appointed a fact-finding Committee comprising Collector, Palghar and State PCB. The matter was then considered on 13.08.2021. The Tribunal noted that adequate compensation had not been provided to the family members of the deceased and environmental and safety norms were not complied with. Notice was issued *inter alia* to CPCB, State PCB, District Magistrate and the PP for their response.

4. We have heard learned Counsel for the parties and with their assistance gone through the documents available on record.

5. First issue for consideration is whether there is failure to comply the Manufacture, Storage & Import of Hazardous Chemical Rules, 1989 Accidents (Emergency Planning, Preparedness, and Response)

Rules, 1996, under the EP Act, 1986 on the subject of safety norms in the course of manufacturing hazardous chemicals. The 1989 Rules inter alia require preparation of On-site and Off-site Emergency Plans, holding of mock drills, safety audits periodically and to maintain safety norms during operation. Second issue is whether the project in question is to be treated as Category 'A' requiring EC from the MoEF&CC. It falls under Entry 5(f) of the Schedule to the EIA Notification dated 14.09.2006. In view of general condition appended to the said schedule if the project is located in critically polluted areas, it becomes category A project. In that case, operation of the unit without requisite EC from MoEF&CC, merely based on EC by SEIAA may amount to violation of law. Third issue is whether having regard to the nature of activity of the unit, principle of 'Absolute Liability' laid down in *M.C. Mehta v. Union of India, (1987) 1 SCC 395*, is attracted and the unit in question is liable to pay compensation to the heirs of the deceased, the injured and for damage to the environment on the principle of restitution under the Employee's Compensation Act, 1923 and under the 'Polluter Pays' principle as per *Vellore Citizen's Forum, (1996) 5 SCC 647*. Fourth issue is steps required to be taken to provide relief to the victims and for restoration of environment and to prevent such incidents in future.

6. Learned Counsel for the applicant has drawn our attention to observations of the officer of the State PCB during field visit after the incident of 11.1.2020 on 12.1.2020, annexed to the petition, as follows:-

- “1. *Building found partly collapsed and damages due to blast of reactor.*
2. *Q5KL steel reactor found bursted into pieces due to the blast having thickness at 22mm at shell dish, 16mm at shell with cooling jacket.*
3. *Pressure valve not found on the reactor, material traces/residues not found/notice in and around the premises.*
4. *Approx. 220 No. of 50KG capacity plastic drums filled with Mefenamic acid found stored in premises.*

5. Container filled with Dimethyl formamide was found stored in premises.
6. Ortho Chlorotoluene, 2-3-xylidine, Trans-4- aminocyclohexanol found filled in plastic container were noticed on spot.
7. Records of material inward outward and entry at persons are not maintained at entry gate.
8. We understood that some material were shifted from Plot no. M-2 to M/s. Alexo Chemicals, Plot. No. N-174 Tarapar, MIDC, hence visited M/s. Alexo Chemicals.
9. On discussion with plant operator Shri. Rupsingh Gond (Mobile No. - 9770831743) it is come to know that the earlier operator Shri. Mohan (Kaka) who had prepared in the incidence said that the material was Ortho-Chloro-Benzoic acid. This Ortho-Chloro-Benzoic acid is also imported from China and stored in storage on first floor of the building in huge quantity.”

7. As per letter dated 12.01.2020 from the State PCB to Collector, Palghar consequential to the above inspection, addressed to the Collector for being brought to the notice of the Industrial Safety Department, it is stated as follows:-

- “1. No sooner this office got intimation regarding the mishap took place at M/s Ank Pharmaceutical Pvt. Ltd, Plot No M-2, MIDC Tarapur to find out whether due to this explosion the quality of the nearby air got polluted or what, the work of its measurement has been started. Thereafter by way of giving visit to said occurrence spot prima facie information was taken.
2. From Maharashtra Pollution Control Board this industry has got consent letter in respect of production of Povidon, Iodine, Pheroxicalm, Phenyl, Propranol, Amine-HCL, Nalydixine Acid, Chloroxozone, Phenyl Ephedrine HCL etc a copy of which is annexed herewith.
3. This industry had obtained Environmental Sanction from Government of Maharashtra on 7/6/2011 and the same was renewed on 20/12/2018.
4. The industry has submitted to the Board the list of different 34 chemicals that are being used as raw material which is annexed herewith.
5. During the period 11/1/2020 to 12/1/2020 this office has done Ambient Air Quality Monitoring of 24 hours at two places. During inspection on the entrance of the industry there was no any notebook was found kept to enter inward-outward of any sort of goods as well as coming and going of employees and officers. Hence to find out the exact cause of explosion a difficulty is being faced.
6. For doing process on the sewage water this industry had erected primary and third type sewage process machinery. At

*present due to explosion said machinery of sewage water processing is collapsed and has caused damage.*

7. *In Plot No M-2 construction of two buildings is done out of which in the backside building the machinery such as Reactor, Centrifuge Machine, Boiler and Scrubber etc has been installed. In the same building there was illegally stored material has been observed such as around 200 HDPE barrels full of Mefenemic Acid with 55 kg capacity, Dymethyl Form amide, Arthochloro Toluene, 2-3 Zylidine, barrel filled with the chemical of Trans-4 Amayno Cyclo Hexanol etc. In the application filed for getting consent letter and the consent letter granted to the factory there is no any mention made about these chemicals.*

*A construction is being made from the factory near its entrance which has been used. During inspection done on 10/10/2019 the Representative of the factory had informed the Board that use of this building is being made for administrative work. But subsequently in this construction illegally the machineries such as reactor, thermo pack etc were installed which has been observed during the inspection done today on 12/1/2020. Out of two reactors in one stainless steel reactor of 5 kilo-litres capacity the explosion took place and it was damaged into pieces. As any portion of chemical is not found inside this may create hurdle in the work of inquiry.*

*However, during inquiry it has been observed that some production made in plot No M-2 was sent to other industry that is under same management M/s Alexo Chemicals, Plot No N-174, MIDC Tarapur. In view of this when inspection of this factory was done it was revealed that on 19/12/2014 this factory had obtained consent letter of Maharashtra Pollution Control Board and its validity was till 31/12/2019 (application has been filed for renewal of the consent). On this plot there is permission granted for doing production of Mefanemic Acid, Chloramphenicol, Chloramphenical Palmitet, Vitamin-B2.5 Phosphate, Theophyline, Ethophylene etc. The Board has given order of stopping production to this factory on 3/12/2016 and 8/8/2018 and thereafter on 17/3/2017 and 8/10/2018 conditional permission of doing production was granted. The representative of the factory Shri Rupsingh Gond (Mobile No 9770831743) has mentioned that the production of Orthochloro Benzoic Acid was done in plot No M-2 by the operator Shri Mohan (deceased). The factory imports this chemical from China in large quantity. In this regard detailed checking is to be done by concerned Department.*

*The subject of this explosion is not coming within the scope/purview of Maharashtra Pollution Control Board. In this regard further action is to be taken through Directorate of Industrial Safety & Health. Before commencing production the industry is expected to take production under control of trained technical manpower. The consent letter was granted to this industry by Maharashtra Pollution Control Board on 2/1/2020. During inquiry prima facie it was told that testing of the production is going on. If the report in this regard is made available by Industrial Safety Department, Explosion Department, Food 85 Drugs Administration Department and Maharashtra Industrial Development Corporation proper conclusion in respect of said mishap can be drawn.”*

8. Reference has then been made to the following observations in closure order passed by the State PCB on 13.1.2020:-

**“AND WHEREAS,** *Sub-Regional Office, MPCB, Tarapur-I received information about accident in M/s. Ank Pharma Pvt. Ltd., Plot No. M-2 on 11/01/2020, accordingly the officials of MPC Board, Tarapur-I visited the site and following observations are noted:*

1. *During the past visit of Board official dt: 12/01/2020, you have informed that the building near main gate will be used for administrative purpose and assured that no any plant and machinery will be installed in the building.*
2. *In this newly constructed building (Near main gate/entrance) you have illegally installed reactors, thermo packs, centrifuge etc. without obtaining permission from respective competent authorities such as DISH.*
3. *It was also reported that you were manufacturing products of your sister concern i.e., M/s. Alexo Chemicals located at Plot No. N-174, MIDC Tarapur in this existing Plot No. M-2 premises.*
4. *It was reported that Orthocholoro Toluene, 2, 3-xylidine, Tras 4-aminocyclohexanoi which is imported from China found stored in the premises.*
5. *Also Hazardous Chemicals like Dimethyl formaide, 2, 3-xylidine found stored in the premises.*
6. *Due to blast the air pollution control equipment and Effluent Treatment Plant (ETP) found in damaged condition.*
7. *Due to negligence towards safety aspects massive blast occurred in your industry on dt: 11/01/2020 causing damage to environment and affected 8-fatals.*
8. *You have not provided display Board at night at main gate/entrance as per consent condition.”*

9. From the material on record status of compliance and status of payment of compensation cannot be ascertained. Safety of citizens and protection of environment are matters of prime concern and any economic/industrial activity has to be consistent with such concern to enforce ‘sustainable development’ and ‘polluter pays’ principles. The factual aspects about sequence of events, cause of failure to prevent the

accident, extent of damage to life/environment, amount of compensation required to be paid and other remedial measures needed have to be determined by this Tribunal for exercising its jurisdiction under Section 15 read with Section 20 of NGT Act.

10. Accordingly, we constitute an eight-member fact-finding Committee comprising MoEF&CC, CPCB, State PCB, District Magistrate, Palghar, Director, Industrial Safety, State Disaster Management Authority, SEIAA, Maharashtra and IIT Bombay. MoEF&CC and CPCB will be the nodal agency for coordination and compliance. All authorities of the State of Maharashtra will facilitate the Committee. Meeting for the purpose may be called within two weeks. The Committee may undertake visit to the site and interact with stakeholders. Except for site visit, other proceedings can be conducted online. The Committee is at liberty to take assistance of any other expert/institution. The Committee may take into account other reports relating to such incidents, available on CPCB website or otherwise. The Committee may furnish its report with recommendations within three months by email at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in) preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF. A copy of the report be uploaded on the website of CPCB simultaneously for response of the project proponent and other parties, if any.

List for further consideration on 04.04.2022.

A copy of this order be forwarded to MoEF&CC, CPCB, State PCB, District Magistrate, Palghar, Director, Industrial Safety, State Disaster Management Authority, SEIAA, Maharashtra and IIT Bombay by e-mail for compliance.

Adarsh Kumar Goel, CP

Sudhir Agarwal, JM

Dr. Nagin Nanda, EM

Dr. Arun Kumar Verma, EM

December 20, 2021  
Original Application No. 19/2020(WZ)  
AVT

# MAHARASHTRA POLLUTION CONTROL BOARD

Tel : 2402 0781 / 2401 0437

Fax : 2402 4068

Visit us at :

Website : <http://mppcb.mah.nic.in>

E-mail : [mpccb@vsnl.net](mailto:mpccb@vsnl.net)



Kalpataru Point,  
2nd, 3rd & 4th floor,  
Opp. Cineplanet,  
Near Sion Circle, Sion (E),  
Mumbai - 400 022.

Ref/SSI

Consent No. BO/RO-Thane/PCI-I/RO(P&P)/ EIC-TN-1514-07/E/CC- 23

Date: 24 / 03/2008

Consent to **Establish** under Section 25 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization / Renewal of Authorization under Rule 5 of the Hazardous Wastes (Management & Handling) Rules 1989 and Amendment Rules. [To be referred as Water Act, Air Act and HW(M&H) Rules respectively].

CONSENT is hereby granted to,

**M/s. Ank Pharma Pvt. Ltd.,**

**M-2, MIDC Tarapur, Tal. Paighar, Dist. Thane**

located in the area declared under the provisions of the Water Act, Air act and Authorization under the provisions of HW(M&H) Rules and amendments thereto subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

1. The Consent to Establish is granted for a period up to – Commissioning of the Unit.

2. The Consent is valid for the manufacture of –

Sr	Products	Max. Qty.
1	Poridone – Iodine	2.0 MT/M
2	Piroxicalm	0.7 MT/M
3	Phenyl Propanol Amine – HCl	0.5 MT/M
4	Nalidixic Acid	0.3 MT/M

3. **CONDITIONS UNDER WATER ACT :**

(i) The daily quantity of trade effluent from the factory shall not exceed **1.05 M<sup>3</sup>**.

(ii) The daily quantity of sewage effluent from the factory shall not exceed **1.0 M<sup>3</sup>**.

(iii) **Trade Effluent :**

**Treatment :** The applicant shall provide comprehensive treatment system consisting of primary/secondary and/or tertiary treatment as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of the treated effluent to the following standards :

1	pH	Between	5.5 to 9
2	Suspended Solids	Not to exceed	100 mg/l
3	BOD 3 days 27 Deg. C	Not to exceed	100 mg/l
4	COD	Not to exceed	250 mg/l
5	Oil & Grease	Not to exceed	10 mg/l

(iv) **Trade Effluent Disposal :** The treated trade effluent shall be recycled/ reused to the maximum extent and remaining shall be disposed into CETP.

(v) **Sewage Effluent Treatment :** The applicant shall provide comprehensive treatment system as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of treated effluent to the following standards :

(1)	Suspended Solids	Not to exceed	100	mg/l.
(2)	BOD 3 days 27 Deg. C.	Not to exceed	100	mg/l.



: 2 :

- (vi) **Sewage Effluent Disposal** : The treated sewage effluent shall be soaked into soak pit which shall be got cleaned periodically. Overflow, if any be disposed into CETP.
- (vii) **Non-Hazardous Solid Wastes** : NIL
- (viii) **Other conditions** : The industry should monitor effluent quality regularly from MoEF approved laboratory.

4. The applicant shall comply with the provisions of the Water ( Prevention & Control of Pollution ) Cess Act, 1977 ( to be referred as Cess Act ) and Rules thereunder. The daily water consumption for the following categories is as under:

i	Domestic	1.0 CMD
ii	Industrial Processing	0.75 CMD
iii	Industrial Cooling / Boiler	2.7 CMD
iv	Agriculture/Gardening	1.5 CMD

The applicant shall regularly submit to the Board the returns of water consumption in the prescribed form and pay the Cess as specified under Section 3 of the said Act.

5. **CONDITIONS UNDER AIR ACT :**

- (i) The applicant shall install a comprehensive control system consisting of control equipments as is warranted with reference to generation of emission and operate and maintain the same continuously so as to achieve the level of pollutants to the following standards :

**Control Equipment** : Dust collector and scrubber of adequate capacity shall be provided to limit the emissions.

**Standards for Emissions of Air Pollutants :**

1	SPM/TPM	Not to exceed	150 mg/Nm <sup>3</sup>
2	SO <sub>2</sub>	Not to exceed	112.5 Kg/Day
3	HCl	Not to exceed	35 mg/Nm <sup>3</sup>
4	Cl <sub>2</sub>	Not to exceed	3 ppm

- (ii) The applicant shall observe the following fuel pattern :-

Sr	Fuel Type	Quantity
1	F.O.	1.25 T/Day

- (iii) The applicant shall erect the chimney(s) of the following specifications :-

Sr.	Chimney attached to	Height in mt.
1	Boiler	15

- (iv) The applicant shall provide ports in the chimney/(s) and facilitates such as ladder, platform etc. For monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. And these shall be painted / displayed to facilitate identification.

- (v) The industry shall take adequate measures for control for noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB(A) during day time and 70 dB(A) during night time. Day time is reckoned in between 6 a.m. And 10 p.m. And night time is reckoned between 10 p.m. And 6 p.m.



: 3 :

(vi) **Other Conditions :**

- 1) The industry should not cause any nuisance in surrounding area.
- 2) The industry should monitor stack emissions and ambient air quality regularly from MoEF approved laboratory.

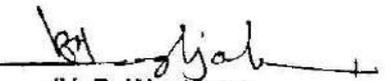
**6. CONDITIONS UNDER HW (M&H) RULES, 1989 & AMENDMENT RULES :**

The applicant shall handle hazardous wastes as specified below:

Sl.	Item No (Sch-I)	Type of Waste	Quantity	Disposal
1	34.3	ETP sludge	70 Kg/M	CHWTSDF-Taloja

7. Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.
8. The applicant shall obtain Consent to Operate before actual commencement of the production activity.
9. The applicant should not take any effective steps for implementation of the project before obtaining Environment Clearance from Environment Department as per EIA Notification, 2006 and amendments thereto.
10. The applicant shall comply with the conditions as stipulated under Annexure - I & II enclosed.
11. The capital investment of the project is Rs. 96 lakhs.

Sd/-  
(Sanjay Khandare)  
Member Secretary

  
(V. B. Waghjale)  
Regional Officer (P & P)

To  
M/s. Ank Pharma Pvt. Ltd.,  
M-2, MIDC Tarapur,  
Tal. Palghar, Dist. Thane

Copy to: RO, MPCB, Thane / SRO, MPCB, Tarapur-I / CAO / HWM Wing - HQ

Received	Amount	D.D. No.	Date	Bank Name
Consent fee (in Rs.) vide:	3000/-	983586	22.10.06	HDFC



ANNEXURE-I

1. The applicant shall maintain good house keeping and take adequate measures for control of pollution from all sources so as not to cause nuisance to surrounding area / inhabitants.
2. The applicant shall bring minimum 33% of the available open land under green coverage/ plantation.
3. Solid waste – The non hazardous solid waste arising in the factory premises, sweepings, etc., be disposed of scientifically so as not to cause any nuisance/pollution. The applicant shall take necessary permission/s from civic authorities for disposal to dumping ground.
4. The applicant shall provide for an alternate electric power source sufficient to operate all pollution control facilities installed by he applicant to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms & conditions of this consent regarding pollution levels.
5. The applicant shall not change or alter quantity, quality, the rate of discharge, temperature or the mode of the effluent/ emissions or hazardous wastes or control equipments provided for without previous written permission of the Board.
6. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous wastes to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.
7. The applicant shall make an application for renewal of the consent at least 60 days before the date of the expiry of the consent.
8. The firm shall submit to this office, the 30<sup>th</sup> day of September every year, the Environmental Statement Report for the financial year ending 31<sup>st</sup> March in the prescribed Form-V as pre the provisions of rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
9. As inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
10. The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
11. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers down- stream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.
12. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
13. The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.



ANNEXURE-II

1. The authorization shall comply with the provisions of the Environment (Protection) Act, 1986 and rule made there under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the State Pollution Control Board.
3. The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous wastes without obtaining prior permission of the State Pollution Control Board.
4. Any unauthorized change in personnel, equipment as working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
5. It is the duty of the authorization person to take permission of the State Pollution Control Board to close down the facility.
6. An application for the renewal of an authorization shall be made as laid down in rule 5(6) (ii).
7. (a) Category No. by land fill

The hazardous waste to be disposed of through landfill shall not contain following constituents in excess of limits specified below:-

Sulphate	...	1000 mg/kg.
Chloride	...	1000 mg/kg.
Mixture of heavy metals ... (Cu+Ni+Cr+Zn)	25	mg/kg.
Lead	...	1.0 mg/kg.
Hg	...	0.01 mg/kg.

The firm shall take appropriate measures to put a lining to landfill site so as to arrest the passage of leachates to ground water. Leachates generated, if any shall be connected to existing Effluent Treatment Plant facilities for treatment and disposed of as per the consent conditions stipulated under Water (Prevention and Control of Pollution) Act, 197.

7. (b) Category No. by incineration through incinerator.

The firm shall meet the emissions standards as prescribe below for the incineration plant-

Particulate	...	150 mg/Nm <sup>3</sup> .
HCl	..	100 mg/Nm <sup>3</sup> .
Hf	..	2 mg/Nm <sup>3</sup> .
SO <sub>2</sub>	..	300 mg/Nm <sup>3</sup> .
NO <sub>x</sub>	..	50 ppm.
Lead	...	10 mg/Nm <sup>3</sup> .
Mixture of As+Cd+Cr+Hg+Ni	..	0.2 mg/Nm <sup>3</sup> .
TOC	..	20 mg/Nm <sup>3</sup> .
CO	..	100 ppm.

The firm shall make efforts to reduce emission by adopting---

- (i) Improved burning technology.
- (ii) Optimized technology for flue gas cleaning and shall create facilities for monitoring the gaseous emissions.

The ash generated in incinerator plant shall be disposed of through landfill at a designated site.

=o0o=



Government of Maharashtra

No.: SEAC-2010/CR.654/TC.2  
 Environment department.  
 Room No. 217, 2<sup>nd</sup> floor.  
 Mantralaya Annex.  
 Mumbai 400 032  
 Date: 7<sup>th</sup> June, 2011

To,  
 M/s. Ank Pharma Pvt. Ltd.,  
 B/707/8, Raj Madhur, Devidas Lane,  
 Borivali (W), Mumbai - 400 103

Subject: New Bulk Drug Unit (of total capacity of 4.3 MT per month) at MIDC, Tarapur by M/s Ank Pharma Pvt Ltd. - Environmental clearance regarding.

Sir,

This has reference to your communication dated 29<sup>th</sup> September, 2010 on the above mentioned subject. The proposal was considered as per the EIA Notification - 2006, by the State Level Expert Appraisal Committee, Maharashtra in its 34<sup>th</sup> meeting and decided to recommend the project for prior environmental clearance to SEIAA. Information submitted by you has been considered by State Level Environment Impact Assessment Authority in its 34<sup>th</sup> meeting held on 7<sup>th</sup> March, 2011.

2. It is noted that the proposal is for grant of Environmental Clearance for New Bulk Drug Unit (of total capacity of 4.3 MT per month) at MIDC, Tarapur by M/s Ank Pharma Pvt Ltd. The project considered by SEAC under screening category 5 (f) of EIA Notification 2006. Pre-feasibility report submitted by the project proponent.

Project information from documents submitted by you & considered by SEAC & SEIAA is summarized as below-

Name of the Project	: New Bulk Drug Unit
Type of Project	: 5 (f) - Bulk drugs and intermediates
Project Proponent	: M/s Ank Pharma Pvt Ltd.
Location of the project	: Plot No M-2, M.I.D.C., Tarapur, Boisar (W) - 401 506, Dist - Thane, Maharashtra 1. Latitude : 22° 30' 2. Longitude : 72° 42'
Land	: 4111.00 sq. mt.
Built up area	: 1393.5456 sq. mt.
Estimated cost of the project	: ₹ 2,50,00,000/-

*[Handwritten Signature]*

## Production capacity:

Sr. No	Product Name	Max Production Kg/Month
1.	Poridone Iodine	2000
2.	Piroxicalm	700
3.	Phenyl Propanol Amine - HCL	500
4.	Nalidixin Acid	300
5.	Chlorosoxazone	700
6.	Phenyl Ephrine HCL	100

## Raw material:

Sr. No	Raw material	Source of material/ Means of transportation
1	POVIDONEIODINE	Local/import by road
2	CHLORSOXAZONE	Local - by road
3	PHENYL PROPANOL AMINE.HCL	Local - by road
4	PIROXICALM	Local - by road
5	NALIDIXIC ACID	Local - by road
6	PHENYL EPHRINE HCL	Local - by road

## Fuel used:

Fuel Oil/LDO: 0.3 T/Day

Other (Agro Waste / Wood): 0.5 T/Day

Water Requirement: 6.15 CMD ; Source: MIDC

Process	0.750 CMD
Cooling Water	2.7 CMD
Drinking	1.2 CMD
Green Belt	1.5 CMD
Fire Service (MLD)	50 M <sup>3</sup>

## Effluent generated:

- Domestic Effluent : Quantity : 1 M<sup>3</sup> Disposal : Septic tank overflow through MIDC drain
- Trade Effluent : Quantity : 1.05 M<sup>3</sup> Disposal : Through MIDC drain to CETP

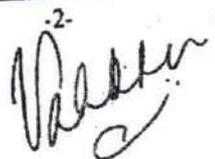
Capacity of ETP: 3 CMD

Rain water harvesting: 2 Nos. of tanks of 5m<sup>3</sup> for RWH each will be provided

Power requirement: Connected Load: 99 HP; Max. Demand: 99 HP; Source : MSEB

## Solid Waste Management:

Sr. No.	Source	Quantity	Mitigation
1	Spent carbon	67 Kg/M	Send to CHWTSDF

-2-  


2	Distillation Residue	275 kg/month	Send to Recycler
3	Contaminated cotton waste	80 kg/yr	
4	Sludge from ETP	70 kg/month	
5	Spent oil	100 liters/Y	

• **Air pollution control measures:**

- Stacks will be provided to Boiler which will be of height 15 m & dia. 8 m
- adequate measures shall be taken to avoid leakages
- Gases from process plant shall be control and maintain as per MPCB emission standards.
- Fugitive source (leakages from ducts & vents) of gases shall be control through proper maintenance

**Noise Pollution Control System:**

- personnel working near noisy machines, boiler shall be provided with ear muffs/plugs
- Control cabins in process units and in plant shall be provided with automatic door closers

**Green belt development:** Green belt has been developed on 1000 Sq. Meter  
Existing: 63 trees & new 92 nos. of trees will be planted

**Environmental Management Plan:**

Operation phase : Capital cost will be ₹ 8,75,000/- Lakhs and Recurring cost will be ₹ 4,75,000.00/-

3. The proposal has been considered by SEIAA in its 34<sup>th</sup> meeting & decided to accord environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions :-

- (i) This clearance is subject to conditions stipulated in MoEF office memorandum J-11013/5/2010-IA-II(1) dated 26<sup>th</sup> October, 2010.
- (ii) This environmental clearance is issued subject to land use verification. Local authority / planning authority should ensure this with request to Rules, Regulations, Notifications, Government Resolutions, Circulars, etc. issued if any. This environmental clearance issued with respect to the environmental consideration and it does not mean that State Level Impact Assessment Authority (SEIAA) approved the proposed land use.
- (iii) "Consent for Establishment" shall be obtained from Maharashtra Pollution Control Board under Air and Water Act and a copy shall be submitted to the Environment department before start of any construction work at the site.
- (iv) No land development / construction work preliminary or otherwise relating to the project shall be taken up without obtaining due clearance from respective authorities.
- (v) No additional land shall be used /acquired for any activity of the project without obtaining proper permission.
- (vi) For controlling fugitive natural dust, regular sprinkling of water & wind shields at appropriate distances in vulnerable areas of the plant shall be ensured.

*Rajender*

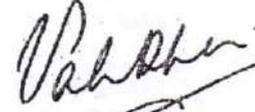
- (vii) Regular monitoring of the air quality, including SPM & SO<sub>2</sub> levels both in work zone and ambient air shall be carried out in and around the power plant and records shall be maintained. The location of monitoring stations and frequency of monitoring shall be decided in consultation with Maharashtra Pollution Control Board (MPCB) & submit report accordingly to MPCB.
- (viii) A detailed scheme for rainwater harvesting shall be prepared and implemented to recharge ground water.
- (ix) Arrangement shall be made that waste water and storm water do not get mixed.
- (x) Periodic monitoring of ground water shall be undertaken and results analyzed to ascertain any change in the quality of water. Results shall be regularly submitted to the Maharashtra Pollution Control Board.
- (xi) Leq of Noise level shall be maintained as per standards. For people working in the high noise area, requisite personal protective equipment like earplugs etc. shall be provided.
- (xii) The overall noise levels in and around the plant are shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures, etc. On all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989.
- (xiii) Green belt shall be developed & maintained around the plant periphery. Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Dept.
- (xiv) Adequate safety measures shall be provided to limit the risk zone within the plant boundary, in case of an accident. Leak detection devices shall also be installed at strategic places for early detection and warning.
- (xv) Occupational health surveillance of the workers shall be done on a regular basis and record maintained as per Factories Act.
- (xvi) The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.
- (xvii) The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Waste (Management and Handling) Rules, 2003 (amended). Authorization from the MPCB shall be obtained for collections/treatment/storage/disposal of hazardous wastes.
- (xviii) The company shall undertake following Waste Minimization Measures :
- Metering of quantities of active ingredients to minimize waste.
  - Reuse of by- products from the process as raw materials or as raw material substitutes in other process.
  - Maximizing Recoveries.
  - Use of automated material transfer system to minimize spillage.
  - Use of "Closed Feed" system into batch reactors.
- (xix) Regular mock drills for the on-site emergency management plan shall be carried out. Implementation of changes / improvements required, if any, in the on-site management plan shall be ensured.
- (xx) A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
- (xxi) Transportation of ash will be through closed containers and all measures should be taken to prevent spilling of the ash.
- (xxii) Separate silos will be provided for collecting and storing bottom ash and fly ash.
- (xxiii) Separate funds shall be allocated for implementation of environmental protection measures/EMP along with item-wise breaks-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall

- not be diverted for other purposes and year-wise expenditure should reported to the MPCB & this department
- (xxiv) The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at <http://envis.maharashtra.gov.in>
- (xxv) Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB & this department, on 1<sup>st</sup> June & 1<sup>st</sup> December of each calendar year.
- (xxvi) A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
- (xxvii) The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely: SPM, RSPM, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- (xxviii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.
- (xxix) The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.
- (xxx) The environmental clearance is being issued without prejudice to the court case pending in the court of law and it does not mean that project proponent has not violated any environmental laws in the past and whatever decision of the Hon'ble court will be binding on the project proponent. Hence this clearance does not give immunity to the project proponent in the case filed against him.
4. The Environment department reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the department or for that matter, for any other administrative reason.
5. **Validity of Environment Clearance:** The environmental clearance accorded shall be valid for a period of 5 years to start of production operations.
6. In case of any deviation or alteration in the project proposed from those submitted to this department for clearance, a fresh reference should be made to the department to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.
1. The above stipulations would be enforced among others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981.



the Environment (Protection) Act, 1986 and rules there under, Hazardous Wastes (Management and Handling) Rules, 1989 and its amendments, the public Liability Insurance Act, 1991 and its amendments.

2. Any appeal against this environmental clearance shall lie with the National Environmental Appellate Authority, if preferred, within 30 days as prescribed under Section 11 of the National Environmental Appellate Act, 1997.



(Valsa R. Var Singh)  
Secretary, Environment  
Department & MS. SEIAA

Copy to:

1. Shri. Ashok Basak, IAS (Retd.), Chairman, SEIAA, 502, Charleville, 'A' Road, Churchgate, Mumbai- 400 020, Maharashtra.
2. Shri. P.M.A Hakeem, IAS (Retd.), Chairman, SEAC, 'Jugnu' Kottaram Road, Calicut- 673 006 Kerala.
3. Member Secretary, Maharashtra Pollution Control Board, with request to display a copy of the clearance.
4. The CCF, Regional Office, Ministry of Environment and Forest (Regional Office, Western Region, Kendriya Paryavaran Bhavan, Link Road No- 3, E-5, Ravi-Shankar Nagar, Bhopal- 462 016). (MP).
5. Regional Office, MPCB, Thane.
6. Collector, Thane.
7. IA- Division, Monitoring Cell, MoEF, Paryavaran Bhavan, CGO Complex, Lodhi Road, New Delhi-110003.
8. Director(TC-1), Dy. Secretary(TC-2), Scientist-1, Environment department
9. Select file (TC-3).

## STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

SEIAA Cell/CR-155/Est  
Environment Department,  
217(Annex), Mantralaya,  
Mumbai- 400 032.  
Date: 20.12.2018.

To,  
M/s Ank Pharma Pvt. Ltd.,  
Plot No M-2, MIDC,  
Tarapur, Boisar (W),  
Dist. Palghar

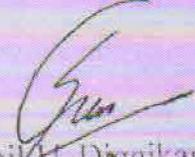
Sub : Revalidation of EC proposed Chemical Industry project at Plot No M-2, MIDC,  
Tarapur, Boisar (W), Dist. Palghar by M/s Ank Pharma P.L.

- Ref.:-
1. Letter submitted by M/s Ank Pharma Pvt. Ltd. dt. 04.06.2018.
  2. EC granted vide no SEAC-2010/CR-654/TC-2, dated 07.06.2011.
  3. Minutes of 144<sup>th</sup> meeting of SEIAA held on 25.10.2018.

Sir,

With reference to above subject matter, it is noted that, you have received Environment Clearance vide above ref. (2). Your proposal for revalidation was considered in 144<sup>th</sup> meeting of SEIAA dated 28.09.2018 and as per decision taken in the meeting, the environment clearance granted vide above ref.(2) is revalidated for a period up to 05.06.2023.

The terms and conditions, stipulated in the EC letter vide above ref.(2) will remain same.

  
(Anil U. Diggikar)  
Principle Secretary  
& Member Secretary, SEIAA

# MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010706/24010437  
 Fax: 24023516  
 Website: <http://mpcb.gov.in>  
 Email: [ast@mpcb.gov.in](mailto:ast@mpcb.gov.in)



Kalpataru Point, 2nd and  
 4th floor, Opp. Cine Planet  
 Cinema, Near Sion Circle,  
 Sion (E), Mumbai-400022

RED/S.S.I

Date: 02/1/2020

No:- Format1.0/AS(T)/UAN No.0000059010/CO - 2001000093

To,

M/s. ANK PHARMA PVT. LTD.

PLOT NO. M-2, MIDC., TARAPUR INDL AREA, BOISAR (W), M.I.D.C., TARAPUR  
 PALGHAR, Palghar-Palghar

**Sub: Grant of 1st Consent to Operate under Red/SSI category**

- Ref:**
1. Consent to Establish granted vide No. BO/RO-Thane/PCI-I/RO(P&P)/EIC-TN-1514-07/E/CC-231 dated 24/3/2008
  2. Environmental Clearance granted vide No. SEAC-20104/CR.654/TC.2 dated 07/6/2011
  3. Revalidation of Environmental Clearance vide No. SEIAA Cell/CR-155/Est dated 20/12/2018

Your application No.MPCB-CONSENT-0000059010 Dated 21.10.2018

For: grant of Consent to Operate under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 6 of the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

1. **The consent to operate is granted for a period up to 30/11/2024**
2. **The capital investment of the project is Rs.2.17 Crs. (As per C.A Certificate submitted by industry Existing-Rs.0.96 Crs + Increase in C.I. - Rs. 1.21 Crs)**
3. **Consent is valid for the manufacture of:**

Sr No	Product/Co-Product Name	Maximum Quantity	UOM
1	POVIDONE IODINE	2.00	MT/M
2	PIROXICALM	0.70	MT/M
3	PHENYL PROPANOL AMINE - HCL	0.50	MT/M
4	NALIDIXIN ACID	0.30	MT/M
5	CHLOROSOXAZONE	0.70	MT/M
6	PHENYL EPHRINE HCL	0.10	MT/M

4. **Conditions under Water (P&CP), 1974 Act for discharge of effluent:**

Sr No	Description	Permitted (in CMD)	Standards to	Disposal Path
1.	Trade effluent	1.05	As per Schedule -I	Recycle 100% to achieve ZLD

Sr No	Description	Permitted	Standards to	Disposal
2.	Domestic effluent	1	As per Schedule - I	Soaked in soak pit

5. **Conditions under Air (P& CP) Act, 1981 for air emissions:**

Sr No.	Stack No.	Description of stack / source	Number of Stack	Standards to be achieved
1	1	BOILER	1	As per Schedule -II
2	2	DG	1	As per Schedule -II

6. **Non-Hazardous Wastes:**

Sr No	Type of Waste	Quantity	UoM	Treatment	Disposal
1	--NA--	0	--NA--	--NA--	--NA--

7. **Conditions under Hazardous & Other Wastes (M & T M) Rules 2016 for treatment and disposal of hazardous waste:**

Sr No	Category No./ Type	Quantity	UoM	Treatment	Disposal
1	28.1 Residues and wastes*	275	Kg/M	Incineration	CHWTSDF
2	28.5 Spent organic solvent	50	MT/M	Reprocess	REUSE IN OWN PROCESS/ SALE TO AUTHORISE PARTY
3	34.3 Chemical sludge from waste water treatment	70	Kg/M	Landfill after treatment	CHWTSDF
4	28.2 Spent catalyst / spent carbon	67	Kg/M	Reprocess	REUSE IN OWN PROCESS/ SALE TO AUTHORISE PARTY

- 8 The Board reserves the right to review, amend, suspend, revoke this consent and the same shall be binding on the industry.
- 9 This consent should not be construed as exemption from obtaining necessary NOC/ permission from any other Government authorities.
- 10 The applicant shall comply with the conditions of the EC granted vide letter No. SEAC-20104/CR.654/TC.2 dated 07/6/2011, which was revalidated on 20/12/2018
- 11 Industry shall install online continuous monitoring system as per CPCB guidelines & data to be transmitted directly from Data Logger to Board server .
- 12 The applicant shall install flow meter and energy meter to Effluent Treatment Plant including distillation column
- 13 The applicant shall make an application for renewal of consent 60 days prior to date of expiry of the consent.

For and on behalf of the  
Maharashtra Pollution Control Board.

*Mirashe*  
11/1/2020  
(P.K.Mirashe)  
Assistant Secretary (Tech.)

**Received Consent fee of -**

<b>Sr.No</b>	<b>Amount(Rs.)</b>	<b>Transaction/DR.No.</b>	<b>Date</b>	<b>Transaction Type</b>
1	75000.00	TXN1903001647	16/03/2019	Online Payment
2	45000.00	TXN1912002625	30/12/2019	Online Payment

**Copy to:**

1. Regional Officer, MPCB, Thane and Sub-Regional Officer, MPCB, Tarapur I  
- They are directed to ensure the compliance of the consent conditions.
2. Chief Accounts Officer, MPCB, Sion, Mumbai



**SCHEDULE-I****Terms & conditions for compliance of Water Pollution Control:**

1. A] As per your application, you have provided Effluent Treatment Plant (ETP) of designed capacity of 2.00 CMD consisting of Primary (Collection tank, Flash mixer, Primary Clarifier/Primary Settling Tank), Tertiary (Pressure sand filter, Activated carbon filter), Advanced treatment (Distillation column) .
  - B] The Applicant shall operate the effluent treatment plant (ETP) to treat the trade effluent and recycle the entire treated effluent into the process for various purposes such as for cooling, process & Scrubbing so as to achieve Zero Liquid Discharge. There shall be no discharge on land or outside factory premises generated from this unit.
  - C] The Industry shall ensure connectivity online monitoring system to the MPCB server including separate energy meter for pollution control system.
2. A] As per your application, you have provided Septic Tank followed by Soak pit for the treatment of 1 CMD of sewage.
  - B] **The Applicant shall operate the sewage treatment system to treat the sewage so as to achieve the following standards.**

1	Total Suspended solids	Not to exceed	100 mg/L
1	BOD (3 days 27oC )	Not to exceed	30 mg/L
  - C] The treated sewage shall be recycled for secondary purposes to the maximum extent and remaining shall be discharged on land for gardening within premise. In no case, sewage shall find its way for gardening / outside factory premises.
3. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification there of & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.
4. The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.



5. The Applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Act, 1974 and as amended, by installing water meters and other provisions as contained in the said act:

<b>Sr. No.</b>	<b>Purpose for water consumed</b>	<b>Water consumption quantity (CMD)</b>
1.	Industrial Cooling, spraying in mine pits or boiler feed	2.70
2.	Domestic purpose	1.20
3.	Processing whereby water gets polluted & pollutants are easily biodegradable	0.75
4.	Processing whereby water gets polluted & pollutants are not easily biodegradable and are toxic	0.00
5.	Gardening	1.5

6. The Applicant shall provide Specific Water Pollution control system as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance/ CREP guidelines.

*[Handwritten signature]*



**SCHEDULE-II****Terms & conditions for compliance of Air Pollution Control:**

1. As per your application, you have provided the Air pollution control (APC) system and erected following stack (s) to observe the following fuel pattern:

Stack No.	Stack Attached To	APC System	Height in Mtrs.	Type of Fuel	Quantity & UoM	S%	SO <sub>2</sub>
1	BOILER	Stack	15	Furnace Oil	60 Kg/Hr	2.00	28.80
2	DG	Acoustic Enclosure	2	Diesel	60 Kg/Hr	1.80	25.92

2. The Applicant shall provide Specific Air Pollution control equipments as per the conditions of EP Act, 1986 and rule made there under from time to time/ Environmental Clearance / CREP guidelines.
3. The applicant shall operate and maintain above mentioned air pollution control system, so as to achieve the level of pollutants to the following standards:

Total Particulate matter	Not to exceed	150 mg/Nm <sup>3</sup>
Acid Mist	Not to exceed	35 mg/Nm <sup>3</sup>

4. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
5. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).



**SCHEDULE-III  
Details of Bank Guarantees:**

Sr. No.	Consent(C2E/C20/C2R)	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
1	C to O	1.0 Lakh	15 Days	Towards O&M of pollution control system and compliance of consent conditions	30/11/2024	341/3/2025

\*\* The above Bank Guarantee(s) shall be submitted by the applicant in favour of Regional Officer at the respective Regional Office within 15 days of the date of issue of Consent.  
# Existing BG obtained for above purpose if any may be extended for period of validity as above.

**BG Forfeiture History**

Srno.	Consent (C2E/C20/C2R)	Amount of BG imposed	Submission Period	Purpose of BG	Amount of BG Forfeiture	Reason of BG Forfeiture
1	NA	--	---	---	--	--

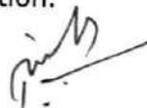
**BG Return details**

Srno.	Consent (C2E/C20/C2R)	BG imposed	Purpose of BG	Amount of BG Returned
	NA			

**SCHEDULE-IV**  
**General Conditions:**

1. The Energy source for lighting purpose shall preferably be LED based
2. The PP shall harvest rainwater from roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial applications within the plant
3. Conditions for D.G. Set
  - a) Noise from the D.G. Set should be controlled by providing an acoustic enclosure or by treating the room acoustically.
  - b) Industry should provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room should be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
  - c) Industry should make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper siting and control measures.
  - d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
  - e) A proper routine and preventive maintenance procedure for DG set should be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use.
  - f) D.G. Set shall be operated only in case of power failure.
  - g) The applicant should not cause any nuisance in the surrounding area due to operation of D.G. Set.
  - h) The applicant shall comply with the notification of MoEFCC, India on Environment (Protection) second Amendment Rules vide GSR 371(E) dated 17.05.2002 and its amendments regarding noise limit for generator sets run with diesel.
4. The applicant shall maintain good housekeeping.
5. The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste.
6. The applicant shall not change or alter the quantity, quality, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipments provided for without previous written permission of the Board. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board.
7. The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises.
8. The industry shall submit quarterly statement in respect of industries obligation towards consent and pollution control compliance's duly supported with documentary evidences (format can downloaded from MPCB official site).
9. The industry shall submit official e-mail address and any change will be duly informed to the MPCB.
10. The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification No. B-29016/20/90/PCI-L dated. 18.11.2009 as amended.
11. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions. The Applicant shall obtain prior consent of the Board to take steps to establish the unit or establish any treatment and disposal system or an extension or addition thereto.

12. The industry shall ensure replacement of pollution control system or its parts after expiry of its expected life as defined by manufacturer so as to ensure the compliance of standards and safety of the operation thereof.
13. The PP shall provide personal protection equipment as per norms of Factory Act
14. Industry should monitor effluent quality, stack emissions and ambient air quality monthly/quarterly.
15. Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.
16. The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent.
17. The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the Hazardous and Other Wastes (M & TM) Rules 2016, which can be recycled /processed /reused /recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for land filling and cannot be recycled/reprocessed etc. should go for that purpose, in order to reduce load on incineration and landfill site/environment.
18. An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
19. Industry shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act, 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 which are available on MPCB website ([www.mpcb.gov.in](http://www.mpcb.gov.in)).
20. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.
21. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
22. The industry should not cause any nuisance in surrounding area.
23. The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB (A) during day time and 70 dB (A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.
24. The industry shall create the Environmental Cell by appointing an Environmental Engineer, Chemist and Agriculture expert for looking after day to day activities related to Environment and irrigation field where treated effluent is used for irrigation.
25. The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.



26. The industry should comply with the Hazardous and Other Wastes (M & TM) Rules, 2016 and submit the Annual Returns as per Rule 6(5) & 20(2) of Hazardous and Other Wastes (M & TM) Rules, 2016 for the preceding year April to March in Form-IV by 30th June of every year.
27. The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
28. The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31st March of the year and number of trees planted by September end.
29. The Board reserves its rights to review plans, specifications or other data relating to plant setup for the treatment of waterworks for the purification thereof & the system for the disposal of sewage or trade effluent or in connection with the grant of any consent conditions.
30. The firm shall submit to this office, the 30th day of September every year, the Environment Statement Report for the financial year ending 31st March in the prescribed FORM-V as per the provisions of Rule 14 of the Environment (Protection) (second Amendment) Rules, 1992.
31. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
32. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).
33. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.



**PHOTOGRAPHS DURING VISIT DATED 22.02.2022 OF FACT-FINDING  
COMMITTEE AS PER THE HON'BLE NGT ORDER DATED 20.12.2021**



**Photograph 1-Front View & Main Gate of M/s. Ank Pharma Pvt. Ltd.**



**Photograph 2-Building 1 where explosion of reactor took place (Front View)**



Photograph 3(a) & 3(b)-Damages to beam & columns due to explosion of Building 1



Photograph 4(a) & 4(b)-Back Side of Building 1 where explosion of reactor took place



Photograph 5(a) & 5(b)-Inside Building 1 where explosion of reactor took place



**Photograph 6-Building 2 behind Building 1 of the premises**



**Photograph 7-Impact of the explosion on Building 2**

**PHOTOGRAPHS FROM COMMITTEE REPORT HEADED BY THE DIVISIONAL COMMISSIONER, KONKAN DIVISION, NAVI MUMBAI DATED 17.03.2020**



**Photograph 1-Factory building where explosion took place**



**Photograph 2-Damaged portion of Factory building**



Photograph 3-Removal of debris by JCB in progress



Photograph 4-Damaged portion of reactor in which explosion took place



**Photograph 5-Front view of affected building**



**Photograph 6-Back view of three story affected factory building**



**Photograph 7- Front view of affected factory building**



**Photograph 8- Rescue operation by NDRF and Fire Brigade in progress**



Government of Maharashtra  
Directorate of Industrial Safety & Health



Office of Joint Director, Industrial Safety & Health, 1<sup>st</sup> Floor, Mangesh Bhuwan,  
Near Gurudwara, Vasai(W), 401 202, Dist- Palghar.

Ph no.- 0250-2332618.

Email- [jddish.vas-mh@gov.in](mailto:jddish.vas-mh@gov.in)

No.Jt.D.I.S.H./Vasai/ Accident/NAG/ | 68 /2020

Date: 24 JAN 2020

**M/s ANK Pharma Pvt. Ltd.**  
**Plot No. M-2, M.I.D.C. Tarapur, Boisar,**  
**Tal Dist-Palghar**

1. After watching the news broadcasting of incidence of explosion on Television news Channels, on 11.01.2020 at about 07.45 pm, I along with Shri A D Khot, Joint Director, DISH, Shri Pradeep Bhintade, Dy Director and Shri Praveen Patil, Dy Director visited the above said factory premises on 11.01.2020 at 10.00 pm to enquire in to the incidence of explosion occurred in factory premises on 11.01.2020 at about 07.00 pm.
2. We reached to accident spot at around 10 pm and made observations as below:-
  - i) A Rescue operation was being carried out under the guidance of Hon. Collector, Palghar.
  - ii) MARG members Shri. Arun Sawant, Shri Yogesh Sankhe, Shri Baban Jadhav, Shri Pankaj Gautam etc were also available on the spot and coordinating for rescue operations.
  - iii) We found that, there are two separate buildings in that premises. One is located on the back side of the plot which is old building. Ground floor of this building is found to be used as store. First floor is used as office and laboratory. Another building is located near main gate facing road where explosion took place. Near main gate, there is watchman cabin. Windows and front wall of the watchman cabin were broken and cabin was full of debris.
  - iv) We observed that, side walls of the production building were broken and thrown away, beams and columns of the building near reactor were also broken, RCC slab of first and mezzanine floor was also broken.
  - v) Fire brigade peoples were carrying out search operations for causalities using JCB. Also NDRF team has reached to the spot and doing rescue operations. They were also shifting injured persons to the hospital and removing dead bodies from the debris.
  - vi) We were at the spot till 03.00 am.
3. Again visited the accident spot at morning 08.00 am on 12.01.2020. Search of missing dead bodies were still was going on.
  - i) We observed that, there was one steam boiler installed at back side of this building in west south corner. It is found that; furnace oil tank of this

*a/c*

- boiler was detached and thrown away. Pressure gauge and temperature gauge were found broken. Make of the boiler is Neotech.
- ii) We observed that, the reactor in which reaction was being carried out was ruptured and found in three pieces; two pieces were lying outside the building at about 25-30 feet distance. We made careful observations and taken different measurement of these pieces. Another piece was lying in the building on the ground floor below which it was erected.
  - iii) We found that one more reactor is installed in the second floor of the building and is in intact position with broken accessories.
  - iv) Also observed that, there is one centrifuge on ground floor at the back side of the building which was partially buried under the debris.
  - v) It is found that common compound wall between plot no M-2 and M-3 is totally collapsed due to shock wave. Also ground floor wall of the building in plot no M-3 is damaged at some places.
  - vi) Obtained the photographs of affected area and equipments.
  - vii) Visited to the Thunga Hospital and enquired with the injured worker Shri. Mulayam Jagatbahadur Yadav, Worker. I recorded his statement.
  - viii) Mr. Praveen Patil, Dy Director visited to M/s Alexo Chemicals, Plot no- N-174 and obtained the statements of Shri. Sanjay Tyambak Barhate, Q. A. Manager, Shri Rupsingh Pruthviraj Singh Gaud, Plant Operator, Shri Atul Gopal Mahajan, Production Officer, who are working in Alexo Chemical, N-174, which is sister concern of ANK Pharma Pvt Ltd.

**4. Again visited the accident spot on 13.01.2020 at about 10.00 am**

- i) Rescue operation by NDRF and fire brigade was completed.
- ii) Visited the Thunga Hospital and recorded the statement of Shri Rakesh Kumar Rajput, Injured Worker.
- iii) Visited adjacent factory M/s Galaxy Chemicals and made observations about damages to the building due to this explosion and asked factory manager to submit details about damages to the building and instructed for necessary repairs and obtaining fresh stability certificate.
- iv) I visited to M/s Alexo Chemicals, N- 174 (Sister Concern of ANK Pharma Pvt Ltd) where it is ensured that Ortho-Chlorobenzoic Acid is used as raw materials for manufacturing of Mefenamic Acid. I also found that, batch of 4- 5 bags of OCBA which were manufactured at ANK Pharma Pvt Ltd and kept in the store of this factory. It shown to me by Shri. Atul Gopal Mahajan, Production Officer, whose statement is recorded.
- v) I obtained the Commercial Invoices, Certificate of Analysis and Challan of the Ortho-Chlorotoluene from Mr. Sanjay Tryambak Barhate, Q. A. Manager of Alexo Chemicals. This Ortho Chlorotoluene was being used as raw material in ANK Pharma Pvt Ltd. We took round in the old back side building of ANK Pharma Pvt Ltd and found that, 200 lit drums of OCT were kept in the store of this building.
- ix) I also visited to Devesh Metal & Chemical Industries; Plot no T-69 and met Owner Mr. Deshmukh. He told that, he supplied Nitric Acid 58 % to the ANK Pharma Pvt Ltd. I obtained delivery challan of the same. As per

the challan 250 litres of Nitric acid was supplied on 09.01.2020 and 600 litres on 11.01.2020.

- x) Visited to M/s Sagiita Pvt Ltd. Plot no- N-4 and discussed with Shri. Sudam Karpe, Director about the reaction and processes for manufacturing of OCBA.

5. I Again visited on 14.01.2020.

- i) Visited Thunga Hospital Boisar and enquired about conditions of injured worker also discussed with their relatives.  
 ii) Attended Hon. Collector meeting.  
 iii) Given preliminary inquiry report to Boisar police station at about 01.00 am.

6. I again visited to the accident spot on 17.01.2020.

- i) I observe all the fittings and accessories provided on SS reactor and Steam Boiler.  
 ii) I obtained the drawings of SS reactor in which explosion occurred.  
 iii) I obtained the copy of electricity bill of the factory.  
 iv) I observed the stock of OCT kept in back side building of factory.  
 v) I collected the samples of OCT from affected factory.  
 vi) I visited to M/s Galaxy surfactants ltd. M-3 and visited to affected and damaged area.  
 vii) I also visited to nearby affected factories and observe the damages. I visited M/s Macrotech Polychem Pvt Ltd, L-60/61. It is observed that, AC sheet roof and glass of windows were broken.  
 viii) I visited to M/s. Vikas Industries, L-39. It is observed that window glasses and AC sheet roof found broken. Also due to impact discharge valve of Spent Acid tank got damaged and about 4 KL spent acid was drained out.  
 ix) I visited to M/s. Beekay Tex, L-38. It is observed that, window glasses are damaged and one worker Shri. Amar Nayak has got minor injury on his right leg.  
 x) I visited to police station and obtained the copy of FIR launched against Director Shri. Natwarlal Patel.  
 xi) I visited to Thunga Hospital, Boisar and recorded a statement of injured person Shri. Rohit Vasistha Singh, a family member residing in factory building where explosion occurred.  
 xii) In Thunga Hospital, I ensured that, Injured worker Shri Rakesh kumar Rajput had got discharge on 13.01.2020 and Shri. Sachinkumar Rambabu Yadav, guest of family member had got discharge on 15.01.2020. Whereas family kids Prachi Rahul Singh and Rutika Rahul Singh were treated on OPD basis and they allowed to go at home after first aid treatment on same day of explosion i.e 11.01.2020.

7. In this incidence following 08 persons are died.

1. Ilias Bashir Ansari, Male, Age- 40 years(Watchman/Security)
2. Nishu Rahul Singh, Female, Age- 26 years (Worker of the factory who residing in factory building)
3. MadhuriVasistha Singh, Female- Age- 46 years (Worker of the factory who residing in factory building)

4. Golu Surendra Yadav, Male, Age- 19 years (Family member residing in Factory building)
5. Rajmati Devi Surendra Yadav, Female - Age- 40 years (Worker of the factory who residing in factory building)
6. Mohan Ingle, Male, Age- 45 years (Plant Operator)
7. Trinath Dasri, Male, Age- 40 years (Lift maintenance person who came for work on the day of explosion)
8. Khushi Yadav, Female, Age- 14 years (Family member residing in building)

**And following 7 persons are injured-**

1. Shri Mulayam Jagatbahadur Yadav, Age- 22 Years ( Factory Worker)
2. Shri Rakesh Kumar Rajput, Age- 55 Years (Factory Worker)
3. Shri Sachinkumar Rambabu Yadav, Age- 20 years (Guest of Family member residing in factory building)
4. Shri RohitVasistha Singh, Age- 19 years (Family member residing in factory building)
5. Shri Natwarlal Patel, Age- 56 years (Director of the factory)
6. Prachi Rahul Singh, Age- 6 years ((Family member residing in factory building)
7. Rutika Rahul Singh, Age-3 years (Family member residing in factory building)

Out of above 7 injured persons, Shri Natwarlal Patel is admitted in Wockhardt Hospital, Mira Road,. Prachi Rahul Singh and Rutika Rahul Singh have got first aid treatment and allowed to go to the home on same day of explosion i.e. 11.02.2020. Shri Rakesh Kumar Rajput got discharged on 13.01.2020 and Shri Sachinkumar Rambabu Yadav got dischargd on 15.01.2020 from Thunga Hospital, Tarapur. Remaining two injured i.e. Shri Mulayam Jagatahadur Yadav, Worker and Shri Rohit Vasistha Singh, Family member are under medical treatment in Thunga Hospital, Tarapur, Boisar.

**8. From the above enquiries it is revealed as follows:-**

- 1) On the day of incidence, following 07 persons were working in the premises incidental to the manufacturing process.

Sr. No.	Name Of Worker	Nature of work
1.	Mohan Ingale	Plant Operator
2.	Mulayam Jagatbahadur Yadav	Maintenance Worker
3.	Sugriv Singh	Helper
4.	Gokul	Helper
5.	Deepchand	Helper
6.	Iliyas Bashir Ansari	Watchman
7.	Rakesh kumar Rajput	Helper

8.	Nishu Rahul Singh	Helper
9.	Madhuri Vasistha Singh	Helper
10.	Rajmatidevi Surendra Yadav	Helper

- 2) All above persons were engaged in the manufacturing process or work incidental to the manufacturing process. Therefore all these persons are 'workers' within the meaning of section 2(l) of the Factories Act, 1948.
- 3) I obtained Memorandum of Article of Association and form Dir-2. As per both documents it shows that, Mr. Natwarbhai Vitthaldas Patel and Mr. Ankit Narvarlal Patel are the Directors of the above said factory. Hence as per section 2(n) of the Factory Act, 1948, both are the occupier of the premises.
- 4) Following Electrical Power operated machines found installed and working in the premises.
- i) Stainless Steel Reactor with stirrer - 02 no,
  - ii) Steam Boiler- 01 no.
  - iii) Centrifuge- 01 no
- 5) Manufacturing Process of OCBA was being carrying out by using chemicals like Ortho-chlorotoluene (Flash Point- 42 Deg. C) which is highly inflammable in nature, and Nitric Acid 58% concentrate which is corrosive and toxic in nature. Both are hazardous chemicals, hence the provisions of Factories Act, 1948 are applicable to this premises, as per Clause-1 of Schedule-II of notification no FAC 2088/2048/(997)Lab-4 dated 22<sup>nd</sup> January, 1993 and the premises constitutes a "Factory" for the purpose of Factories Act 1948.

Also manufacturing process was being carried out in SS reactor with limped coil by circulating steam formed in steam boiler. Chemical reaction inside the reactor was carried out under pressure more than atmospheric pressure. Also in steam boiler, water was getting heated and circulated at more than atmospheric pressure. Hence reactor and steam boiler both are pressure vessel, therefore provisions of Factories Act, 1948 are applicable to this premises, as per Clause-2(g) of Schedule-II of notification no FAC 2088/2048/(997)Lab-4 dated 22<sup>nd</sup> January, 1993 and the premises constitutes a "Factory" for the purpose of Factories Act 1948.

#### 9. About the factory the Manufacturing Process-

This factory is engaged in manufacturing of Ortho Chlorobenzoic Acid which is used as raw material for making of Bulk Drugs (Mefenamic Acid) by using Ortho-chlorotoluene and Nitric Acid (55%) as raw materials.

The dangerous occurrence (explosion) was occurred in reactor which is installed at first floor of the factory. Material of construction of this reactor is

stainless steel having capacity 10 KL. This reactor was having SS limped coil through which steam/ water is circulated for heating/Cooling. 1.5" MS pipe is used to supply steam from steam boiler. Also 1" MS pipe is used to supply cooling water from overhead water tank. Cooling tower was not installed in the factory. One pressure gauge, one RTD (Resistance Temperature Detector) point and one safety valve is provided at pipeline of steam boiler. One of the 1.5" nozzles on reactor was used to fit RTD for temperature measurement. Reactor was having 1" nozzle for fitment of pressure gauge. It is observed that SS reactor was broken in three pieces. Half of portion was lying on ground floor of the factory and another two pieces were lying at about 25 to 30 feet from the factory building. Safety valves and rupture disc are not provided on the reactor shell. A helical gear box with motor drive was provided to rotate the stirrer. Water pump is provided to circulate the water from overhead tank.

Reaction mass was heated in the reactor by circulating steam in the limped coil of reactor which was supplied by steam boiler. Utility shed is located at ground floor of plant where Boiler and pumps are installed.

#### 10. The General manufacturing process of OCBA is as follows.

- i) SS reactor first cleaned by water.
- ii) Proportionate water is added into SS reactor.
- iii) 600 Kg of Nitric acid (58%) is added into reactor.
- iv) Proportionate quantity of Ortho-chlorotoluene is added into SS reactor.
- v) This mixture is kept in reactor and steam heating is started to reactor limped coil with continuous stirring to reach at required temperature.
- vi) Then limped coil of reactor is drained & cooling water circulation is started through limped coil and continued till next reaction is completed.
- vii) Then batch is taken to centrifuge.
- viii) Then batch is drained into trays and cool at room temperature
- ix) Finally OCBA is obtained.

#### 11. Occurrence of Explosion:

The reaction of Ortho-chlorotoluene by using nitric acid was going on 11/01/2020. The batch was charged by reactor Operator Shri. Mohan Ingale. Water was first taken into SS reactor and then 600 kg of HNO<sub>3</sub> (58%) was added into it. Then Ortho-chlorotoluene was charged into reactor. The stirring and heating was started since 4.00 pm.

Since reaction of Ortho-Chlorotoluene with nitric acid is highly exothermic. This reaction might have become runaway due to one of the following reason - a) Steam heating is not stopped at predetermined temperature, b) Cold water circulation have not started, c) Failure of cooling water circulation pump, d) Failure of stirrer, e) Absence of cold water circulation through cooling tower.

As reaction became runaway, the temperature of reaction mass was continuously increasing leading to violent boiling and decomposition of the

chemicals leading to sudden rise in pressure inside the reactor. As this reactor was not provided with safety valve and rupture disc for emergency venting of large quantities of vapours inside the reactor which leads to sudden explosion of the reactor. Explosion was so massive that it has caused rupture of the reactor, breaking of columns and beams adjacent to reactor, breaking of RCC slab of part of first floor, brick walls and glasses were thrown away.

Due to this explosion, SS reactor of thickness 16 mm got busted and torned in to two pieces vertically. Half of the portion was lying on the ground floor of the factory where half of the portion was thrown away at about 25-30 feet distance from production area and split in two pieces. The RCC structure, beams, columns, walls and slab of the first and ground floor got damaged. The accessories of the reactor and steam boiler got damaged and thrown away. Compound walls and building walls of nearby factory M/s Galaxy Surfactants Ltd, Plot no M-3 got damaged due to shock wave of the explosion.

During operation of reactor Mohan Ingale, Operator was standing near the reactor, due to impact he died on the spot. Whereas Watchman Ilias Bashir Ansari was near security cabin, he has got hit by debris due to which he has died on the spot. Mr. Natwarlal Patel, the Director was standing near ETP, also got hit by debris and broken window glasses due to which he got severe injuries. Now he is under medical treatment at Wockhardt Hospital, Mira Road. Mr. Mulayam Jagatbahadur Yadav was standing nearby another building in same premises which about 80 feet away from the production area, he also got injuries on his chest and back, he is under medical treatment at Thunga Hospital, Boisar. Mr. Rakesh Kumar Rajput was also got injuries and he was admitted at Thung Hospital, Boisar, he got discharge on 13.01.2020. Trinath Dasri, lift maintenance technician had came to the factory for some work, he also trapped in the debris and died on the spot. In this factory building, 02 families were staying inside. From these families, Nishu Rahul Singh, Madhuri Vasishta Singh, Golu Surendra Yadav, Rajmati Devi Surendra Yadav and Khushi Yadav are died by trapping inside the debris whereas Mr. Sachin Rambabu Yadav, Mr. Rohit Vasishta Singh, Prachi Rahul Singh and Rutika Rahul Singh got injured due to hitting of debris. Out of these injured Mr. Sachin Rambabu Yadav has got discharge from the Hospital on 15.01.2020. Prachi and Rutika was treated on OPD basis. Both they were allowed to go at home on same of day of explosion i.e. 11.01.2020.

## 12. The contraventions of Provision of Factory Act:-

- 1) From remarks no- 8, it is clear that, a premises where accident took place is a factory. But from the office record, it is found that, the occupier has not obtained a license under the Factories Act 1948. Thus the occupier was using the premises as a factory without a valid license. By using premises as a factory without obtaining License under Factories Act 1948 from Chief Inspector of Factories, the occupier has contravened the provisions of Rule 4 (4) of the Maharashtra Factories Rule, 1963.

- 2) It is observed that, occupier is using the premises as a factory without getting plans approved from the Chief Inspector/Deputy Chief Inspector, Industrial Safety and Health, in respect of the following namely, a) site on which the factory is situated, b) building and extensions used for the purposes of manufacturing process, c) the layout of plant and machinery etc. Therefore the occupier has contravened the provisions of Rule 4 (1) (a), 4 (1) (b) & 4 (1) (c) of the Maharashtra Factories Rules, 1963.
- 3) Enquiry reveals that, chemical reaction of ortho-chlorotoluene with nitric acid was being carried out in this factory. This reaction is exothermic in nature and can lead to run away if temperature of reaction is not controlled. There was no automatic cut off device provided on steam supply line to reactor which shall cut off steam supply to reactor on event of reaching critical pressure and temperature of process. Cooling water was circulated through limped coil directly from overhead tank. No cooling tower was provided to cooling of re-circulated hot water.

To take care of rise in reactor pressure because of exothermic reaction or in case of excessive heating due to cooling water failure, a spring loaded safety valve of adequate relieving capacity and rupture disc required to be provided on reactor. But during investigation, a safety valve to prevent the safe working pressure of the vessel being exceeded was not found installed on the reactor. Also rupture disc was not provided to the reactor to release the excessive pressure in case any emergency.

Thus system of work to put off steam supply manually and starting cooling water into reactor jacket manually without provision of cooling tower for cooling of water and by not providing spring loaded safety valve and rupture disk on reactor or elsewhere in the system which will operate & vent the excess pressure generated in reactor as soon as pressure exceeds the safe working pressure, also there was no automatic cut off device provided on steam supply line to reactor which shall cut off steam supply to reactor on event of reaching critical pressure and temperature of reactor, was not safe and without risk to health of workers working on same, Hence occupier has contravened the provisions of the Section 7-A (2) (a) of the Factories Act-1948.

- 4) It is also observed that Reactor capacity 10,000 lit. found in service and operated above the atmospheric pressure generally at about 37/kg/cm<sup>2</sup>. Which is "pressure vessel". It is also pressure plant along with its accessories and pipings within meaning of Rule 65 (1) (c)&(d) of Maharashtra Factories Rules, 1963. It is also observed that one steam boiler of make Neotech was in use in connection with manufacturing process. It was found fitted with pressure gauge which was in broken condition. This is also pressure plant as per Rule 65 (1) (c)&(d) of Maharashtra Factories Rules, 1963.

I found that above mentioned reactor and steam boiler which are "pressure plants" were being used in connection with the manufacturing process on the day of accident and first time on 09.01.2020 without (a) a certificate specifying maximum safe working pressure and the test to which it was subjected to, is obtained from the maker, (b) getting thoroughly examined by a competent person in the premises where it is used.

Hence provisions of **Rule 65(6)(iii)(a)&(b) of the Maharashtra Factories Rules, 1963** are contravened by the occupier.

- 5) I found that, this factory is manufacturing Ortho-chlorobenzoic Acid which is drug intermediate and used for manufacturing of bulk drug i.e. Mefanamic Acid. Hence this factory comes under Clause 11 of The First Schedule under Section 2(cb) of the Factories Act, 1948. Also hazardous chemicals such as Nitric Acid and Ortho-chlorotoluene are used in manufacturing of this drug intermediates which can cause material impairment to the health of person engaged in or connected therewith. Hence this is 'hazardous Process' factory.

As per Rule 73-R of the Maharashtra Factories Rules, the occupier of every factory carrying on 'hazardous process' shall furnish, in writing, to the Chief Inspector a copy of all the information furnished to the workers as per Rule 73-N(1), local authority, general public and the District Emergency Authority as per Rule 73-O. But it is found that the occupier of the M/s ANK Pharma Pvt. Ltd, Plot no M-2 has not furnished in writing, to the Chief Inspector a copy of all the information furnished to the workers, local authority, general public and the District Emergency Authority. Hence the occupier of the factory has contravened the provisions of **Rule 73-R(1) of the Maharashtra Factories Rules, 1963**.

### **13. Remedial Measures :**

To avoid the reoccurrence of such incidence in future following remedial measures are suggested :-

- a) Safety relief valve of adequate pressure relieving capacity shall be provided on reactor to automatic venting of pressure in case if it exceeds safe design pressure of reactor.
- b) Steam shall be supplied through a pressure reducing valve and safety valve correctly set to ensure that critical temperature of the process is not exceeded.
- c) Suitable rupture disc shall be provided on the vessel in addition to safety valve.
- d) There shall be an automatic cut off device of steam supply, no sooner the critical temperature is reached, beyond which the reaction, in the vessel is likely to get out of control.
- e) An audio visual alarm system shall be provided linked to the pressure indicator of the vessel, so that automatically an audible warning will be given as soon as the pressure exceeds the present safe limit.

- 1) There shall be provided an automatic arrangement such that if the mechanical agitation fails on account of failure of motive power or due to broken shaft or other such contingencies, the supply of steam would stop automatically.
- g) Arrangement of cold water circulation for controlling the temperature of reactor shall be made through cooling tower.
- h) A HAZOP study for the entire process shall be carried out by specialized expert and recommendations thereof shall be complied with.
14. Adequate Medical treatment shall be extended to the injured. Health progress of injured shall be reported periodically to this Directorate.

15. Payment of Compensation and Ex-gratia:

Occupier is directed to -

- 1) Pay legal due compensation to heirs of diseased under intimation to this office.
- 2) Pay substantial sum of rupees as ex-gratia payment to heirs of diseased under intimation to this office.

16. Show Cause Notice :

The occupier may explain & show causes if any within 7 days that why legal action shall not be considered against him for the above said contraventions.

*N. A. Gajpure*  
(N. A. Gajpure)  
Deputy Director,  
Industrial Safety and Health, Vasai  
Dist. Palghar

24/01/2020

# महाराष्ट्र प्रदूषण नियंत्रण मंडळ

उप प्रादेशिक कार्यालय, तारापुर -I



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एम. आय. डि. सी. कॉलनी परिसर,  
तारापूर, पोस्ट - टि. ए. पी. पी.,  
तालुका, जिल्हा - पालघर,

जा. क्र./ उप्राकाता-I - / आस्था/ २००११२-FTS-०००१

दि:- १२.०१.२०२०

प्रति,

मा. जिल्हाधिकारी सोा पालघर,  
ता.जि.पालघर

विषय: मे. अँक फार्मास्युटिकल प्रा.लि., प्लॉट नं. एम-२, एम.आय.डी.सी, तारापूर  
या कारखान्यामध्ये दि.११.०१.२०२० रोजी झालेला स्फोटाबाबत...

संदर्भ: १. स्थानिक पत्रकाराकडून भ्रमणध्वनी वरून मिळालेल्या संदेशानुसार.

२. संयुक्त पाहणी दि.११.०१.२०२० चा अहवाल.

३. मे. अँक फार्मास्युटिकल प्रा.लि यांना दि.०२.०१.२०२० रोजी मंडळाकडून प्रदान  
करण्यात आलेले संमतीपत्र.

मा. महोदय,

वरील संदर्भानुसार मे. अँक फार्मास्युटिकल प्रा.लि, प्लॉट नं. एम-२, एम.आय.डी.सी, तारापूर या  
उद्योगामध्ये झालेल्या दुर्घटनेबाबत माहिती मप्रनि मंडळाशी संबंधित माहिती खालील प्रमाणे आल्या:-

मप्रनि मंडळाच्या कार्यप्रणाली नुसार उद्योगाने उद्योग स्थापन करण्यापुर्वी कलम २५ जल (प्रतिबंध व  
प्रदुषण नियंत्रण) कायदा १९७४ व कलम २१ हवा (प्रतिबंध व प्रदुषण नियंत्रण) कायदा १९८१ अंतर्गत उद्योगाने  
सादर केलेल्या उत्पादन प्रक्रिया नुसार उद्योग उभारणीसाठी संमतीपत्र प्रदान करीत असते (Consent to  
Establish). सदर संमतीपत्रात उद्योगाने सादर केलेल्या उत्पादन प्रक्रियेनुसार त्यातून निर्माण होणा-या  
सांडपाणी, उत्सर्जित होणारे प्रदुषित घटक व निर्माण होणारा घातक घनकचरा यांच्यावर योग्य ती प्रक्रिया,  
संयंत्रणा व विल्हेवाट आदी बाबत अटी व शर्ती नमुद करण्यात येतात व तसेच उद्योग उभारणी नंतर उत्पादन  
सुरू करण्यापुर्वी मप्रनि मंडळाकडून कलम २६ जल (प्रतिबंध व प्रदुषण नियंत्रण) कायदा १९७४ अनुसार  
संमतीपत्र घेणे बंधन कारक आहे (Consent to Operate).

त्यानुसार उद्योगाकडून प्राप्त अर्जानुसार उद्योग उभारणीसाठी प्रदान करण्यात आलेल्या  
संमतीपत्रातील अटी व शर्ती प्रत्येकी उत्पादन प्रक्रियानुसार उद्योगाची उभारणी व प्रदुषण नियंत्रण संयंत्रणा  
उभारलेली आहे याची पाहणी केल्यानंतर सदर उद्योगास उत्पादन सुरू करण्याबाबत काही अटी व शर्तीनुसार  
संमतीपत्र प्रदान करण्यात येते. सदर संमती पत्रात इतर शासकिय विभाग यांचे नाहरकत प्रमाण पत्र/  
परवानगी घेण्याबाबत अट घालण्यात येते. मप्रनि मंडळ उद्योगामधून निर्माण होणा-या प्रदुषित घटकावर  
प्रतिबंध व नियंत्रणाचे काम करीत असते. उद्योगामध्ये होणा-या दुर्घटना/अपघात याबाबतचे  
कामकाज/देखरेख औद्योगिक सुरक्षा विभाग, स्फोटक विभाग, अन्न व औषध प्रशासन विभाग, महाराष्ट्र

औद्योगिक विकास महामंडळ यांच्या अखत्यारीत येत असते व त्याबाबतची अट सदर संमती पत्रात देण्यात येते. मे. अँक फार्मास्युटिकल प्रा.लि., प्लॉट नं. एम-२, एम.आय.डी.सी, तारापूर या उद्योगाची पाहणी दरम्यान निदर्शनास आलेल्या बाबी खालील प्रमाणे:-

१. मे. अँक फार्मास्युटिकल प्रा.लि., प्लॉट नं. एम-२, एम.आय.डी.सी, तारापूर येथे झालेल्या दुर्घटनेची माहिती या कार्यालयास मिळताच सदर स्फोटामुळे आजुबाजुच्या परीसरात हवेची गुणवत्ता प्रदुषित झाली वा कसे तसेच या बाबतचे मोजमाप करण्याचे काम सुरु करण्यात आले. तदनंतर सदर दुर्घटना स्थळी भेट देवून प्रथमदर्शनी माहिती घेण्यात आली.
२. मप्रनि मंडळाकडून सदर उद्योगाला पोव्हिडॉन आयोडीन, फिरॉक्सीकाल्म, फिनाईल प्रोप्रॅनॉल अमाईन-एचसीएल, नॅलीडिक्सीन अँसिड, क्लोरोक्सोझोन, फिनाईल एफिरीन एचसीएल ई. उत्पादनास संमतीपत्र दिले आहे व त्याची प्रत सोबत जोडली आहे.
३. सदर उद्योगाने महाराष्ट्र शासनाकडून पर्यावरण मंजुरी दि.०७.०६.२०११ रोजी घेतली आहे व त्याचे नुतनीकरण दि.२०.१२.२०१८ रोजी केली आहे.
४. उद्योगाने कच्चा माल म्हणून वापरण्यात येणा-या विविध प्रकारच्या ३४ रसायनाची यादी मंडळास सादर केली आहे. ती यादी सोबत जोडली आहे.
५. या कार्यालयामार्फत २४ तासाचे अँबियट एअर क्वालिटी मॉनीटरिंग दोन ठिकाणी दि.११.०१.२०२० ते दि.१२.०१.२०२० दरम्यान करण्यात आले आहे. पाहणी दरम्यान उद्योगाच्या प्रवेशद्वारावर कोणत्याही प्रकारच्या मालाचा आवक जावकाची तसेच कर्मचारी अधिकारी यांची ये-जा नोंदवही ठेवलेली आढळून आलेली नाही. त्यामुळे स्फोटाचे नेमके कारण समजण्यास अडचण होत आहे.
६. सदर उद्योगाने सांडपाण्यावर प्रक्रिया करण्याकरीता प्राथमिक व तृतीय स्वरुपाची सांडपाणी प्रक्रिया संयंत्रणा उभारलेली होती व सद्यस्थितीत सदर सांडपाणी प्रक्रिया संयंत्रणेचे स्फोटामुळे संयंत्रणा कोलमडून पडली आहे व तीचे नुकसान झाल्याचे आढळून आले आहे.
७. प्लॉट क्रं. एम-२ येथे दोन इमारतींचे बांधकाम उभारण्यात आले आहे त्यापैकी पाठी मागील बाजूस असणा-या इमारतीमध्ये रीअॅक्टर, सेंट्रीफ्युज मशीन, बॉयलर, स्क्रबर ई. यंत्रणा उभारण्यात आली आहे. याच इमारतीमध्ये अवैधरित्या साठवलेली मेफेनेमिक अँसिडने भरलेले ५५ किलो क्षमतेचे अंदाजे २०० एचडीपीई बॅरल, डायमेथिल फॉर्मअमाईड, आर्थोक्लोरो टोल्युईन, २-३ झायलीडिन, ट्रान्स-४-अमायनो सायक्लो हेक्झानोल या रसायनाने भरलेले बॅरल आढळून आले आहे. या रसायनांची नोंद कारखान्याने मंडळाकडे संमती पत्राच्या अर्जामध्ये व कारखान्यास बहाल करण्यात आलेल्या संमतीपत्रामध्ये केलेली नाही.

कारखान्याकडून प्रवेशद्वाराजवळ सुरु असलेल्या बांधकामाचा वापर केले असून त्याचा वापर प्रशासकिय कामाकरीता करण्यात येण्या असल्याबाबत कारखाना प्रतिनिधीने दि.१०.१०.२०१९ रोजीच्या पाहणी दरम्यान मंडळास कळविले आहे. परंतु तदनंतर सदरील बांधकामावर बेकायदेशीररीत्या रीअॅक्टर, थर्मोपॅक ई. यंत्रणा बसविण्यात आले असल्याचे आज दि.१२.०१.२०२० च्या पाहणी दरम्यान निदर्शनास आहे. सदर दोन रीअॅक्टरपैकी एका ५ किलो लिटर क्षमतेच्या स्टेनलेस स्टीलच्या रीअॅक्टरमध्ये स्फोट होवून त्याचे तुकडे झाले आहे. त्यावर कोणत्याही रसायनांचे अंश आतील बाजूस नजरस न आल्यामुळे तपास कामात अडथळा निर्माण होण्याची शक्यता आहे.

तथापी चौकशी दरम्यान असे कळाले कि, कारखानदाराने प्लॉट क्रं.एम-२ वरील घेण्यात आलेले काही उत्पादन त्यांच्याच व्यवस्थापनाखाली असलेल्या दुस-या उद्योगात मे. अलेक्झो केमिकल्स, प्लॉट नं. एन-१७४, एम.आय.डी.सी, तारापूर येथे पाठविण्यात आले होते. त्या अनुषंगाने सदर कारखान्याची पाहणी केली असता या कारखान्याने मप्रनि मंडळाचे दि.१९.१२.२०१४ रोजी संमती पत्र घेतल्याचे आढळून

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आले आहे त्याची वैधता दि.३१.१२.२०१९ पर्यंत होती (संमतीपत्र Renewal चा अर्ज करण्यात आला आहे) या प्लॉट वर मेफॅनेमिक आम्ल, क्लोरामफेनिकॉल, क्लोरामफेनिकॉल पाल्मीटेट, व्हिटॅमिन-बी-२.५ फॉस्फेट, थियोफायलीन, इथोफायलीनचे उत्पादन घेण्याची परवानगी आहे. मंडळामार्फत सदर कारखान्यास दि.०३.१२.२०१६ व दि.०८.०८.२०१८ रोजी उत्पादन बंदचे आदेश देण्यात आले होते व तदनंतर दि.१७.०३.२०१७ व ०८.१०.२०१८ रोजी उत्पादन घेण्याची सशर्त परवानगी देण्यात आली होती. कारखान्याचे प्रतिनिधी श्री.रूप सिंग गोंड (मो.नं.९७७०८३१७४३) यांनी असे सांगितले कि, प्लॉट क्रं. एम-२ येथे कारखाना ऑपररेटर श्री. मोहन (मृत) यांच्या मार्फत ऑर्थोक्लोरो बेन्झोईक ॲसिड चे उत्पादन घेण्यात आले होते. कारखान्यामार्फत या रसायनाचे चीन या देशाकडून मोठया प्रमाणात आयात सुद्धा करण्यात येते. या बाबतचे सखोल तपास संबंधित विभागाकडून होणे आहे.

स्फोटासंबंधीची बाब मप्रनि मंडळाच्या कार्यक्षेत्रामध्ये (Perview) मध्ये येत नाही. यावर डायरेक्टोरेट ऑफ इंडस्ट्रियल सेफ्टी अँड हेल्थ (Directorate of Industrial Safety & Health) विभागामार्फत पुढील कार्यवाही होणे आहे. सदर उद्योगाने उत्पादन सुरु करण्याआधी प्रशिक्षित व तांत्रिक मनुष्यबळाच्या देखरेखी खाली उत्पादन घेणे अपेक्षित असते. सदर उद्योगाला मप्रनि मंडळाकडून दि.०२.०१.२०२० रोजी संमतीपत्र प्रदान केले गेले होते. चौकशी दरम्यान उत्पादनाची चाचणी सुरु असल्याचे प्रथम दर्शनी सांगण्यात आले. तरी याबाबतचा अहवाल औद्योगिक सुरक्षा विभाग, स्फोटक विभाग, अन्न व औषध प्रशासन विभाग, महाराष्ट्र औद्योगिक विकास महामंडळ यांचेकडून अवगत झाल्यास सदर दुर्घटनेबाबत योग्य तो निष्कर्ष काढता येईल.

--सही--

(म.सो. होळकर)

उप-प्रादेशिक अधिकारी,

म. प्र. नि. मंडळ, तारापूर-१.

प्रत माहितीसाठी सादर:

१. प्रधान वैज्ञानिक अधिकारी, म. प्र. नि. मंडळ, मुंबई.
२. प्रादेशिक अधिकारी म. प्र. नि. मंडळ, ठाणे.

# Joint Inspection Report

12.01.2020

Name of Industry - M/s. ~~Amk~~ Pharma Pvt Ltd.  
M-2, MIDC Tarapur, Boisar, Palghar.

Industry has been visited by <sup>along with</sup> ISRO upon receiving the information of accident in above factory. on dt. 11.01.2020

During visit it was observed that

1. Building found partly collapsed <sup>damaged</sup> due to blast of reactor.
2. 5 KL steel reactor found bursted into pieces due to the blast. Having thickness of 22mm ~~and~~ at shell disk & 16 mm at shell
3. ~~and~~ cooling ~~jacketing~~ jacket.
3. Pressure valve not found on the reactor, material traces / residues not found / notice in and around the premises
4. Approx. 200 No. of 50 kg capacity plastic drums filled with Mefenamic acid found stored in premises.
5. Container filled with Dimethyl formamide was found stored in premises.
6. Ortho chlorotoluene, 2-3-xylidine, Trans-4-aminocyclohexanol found filled in plastic container were noticed on spot.
7. Records of material inward outward and entry of person are not maintained at entry gate.

8. We understood that some material were shifted from plot No. 11-2 to 11b. Alexo chemicals, plot No. N-174 Tazapur, MSDC, hence visited 11b, Alexo chemical.
9. On discussions with plant operator, Shri Rup Singh ~~Gond~~ Gond (Mobile NO- 9770831743) it is come to know that the earlier operator Shri. Mohan (Kaka) who had expired in the incidence said that the material was Ortho-chloro-benzoic acid. This ortho-chloro benzoic acid is also imported from china and stored in storage on first floor of the Building in huge quantity.

H. L. L.  
SRO Tazapur-I  
MPCB

25/4/2022  
Industry  
representative.

J. W. J.  
F.O. SRO Tazapur-I office  
MPCB



सत्यमेव जयते

**GOVERNMENT OF MAHARASHTRA**  
**--COMMITTEE REPORT--**

**HEADED BY**

**THE DIVISIONAL  
COMMISSIONER, KONKAN  
DIVISION, NAVI MUMBAI**

**TO FIND OUT THE CAUSE OF THE ACCIDENT OCCURRED IN**

**M/S ANK PHARMA PVT LTD**

**PLOT NO M-2, MIDC TARAPUR, BOISAR**

**ON 11<sup>TH</sup> JANUARY, 2020**

**AND**

**TO SUGGEST THE EXHAUSTIVE REMEDIAL MEASURES TO  
AVOID SUCH INCIDENCES IN FUTURE**

## FOREWORD

On the 11<sup>th</sup> of January 2020, a serious explosion took place in a factory located in the industrial area of Tarapur, Boisar, District- Palghar. In this incident 08 persons died including workers and family members residing in that factory building. 07 persons including Director of company were injured.

The explosion took place in the small scale factory namely "M/s ANK Pharma Pvt. Ltd." situated at plot no M-2, MIDC Tarapur, District- Palghar, where business of manufacturing of drugs intermediates was being carried out.

In this factory, drugs intermediate Ortho Chlorobenzoic Acid (OCBA) was being manufactured by using raw materials like Ortho Chlorotolune OCT(99.5%) and Nitric Acid (58 %). This explosion resulted into an offsite emergency. After this incident rescue & mitigation operations were carried out by the different Government departments like Fire brigade, Police Department, Directorate of Industrial Safety & Health, NDRF, Revenue department etc. and agencies like Mutual Aid Response Group (MARG) also helped continuously for 2 days i.e. 11.01.2020 & 12.01.2020.

Nearby factories were affected due to shock wave caused by the said explosion.

Ministry of Labour, Government of Maharashtra has formed a committee under the chairmanship of the Divisional Commissioner, Konkan Division, Konkan Bhawan, Navi Mumbai as per section 90 of the Factories Act, 1948 to investigate & find the cause of the accident and recommend remedial measures to avoid such type of accidents in future.

The committee members conducted various meetings and discussions with the workers, affected persons, equipment supplier, raw materials supplier, different government authorities & Director of the factory to know the details about the

manufacturing process, raw materials used, storages, machinery layout of the factory, persons and areas affected.

The Committee members visited the accident site to know about the damages and details about the affected areas.

Member secretary of the committee Dr. Mahendra Kalyankar (IAS), Director Industrial Safety & Health, MS, Mumbai and member Shri Santosh Warrik, Chief Fire Officer, MIDC have put maximum efforts to investigate the cause of the accident by thoroughly considering the different chemical properties of Ortho Chlorotoluene and Nitric Acid by carrying out its DSC analysis in re-known laboratory in Mumbai. Also Shri Ashok Khot, Joint Director, Industrial Safety & Health and Shri Nitin Gajpure, Deputy Director, Industrial Safety & Health put lot of efforts for the investigation of the enquiry and in preparing draft of committee report.

The committee after studying all possibilities of the accident finally concluded the cause of the explosion and has further given exhaustive remedial measures, which includes the technical up gradation for improvement of administrative systems.

The Committee is thankful to all the Government agencies, Social Organizations, MARG members, industry members and all the other individuals who have helped in completing this task within a very short period of time.



(Shivaji Daund)

Divisional Commissioner,  
Konkan Division, Navi Mumbai  
& Chairman of the Committee

The committee after studying all possibilities of the accident occurred in M/s ANK Pharma Pvt. Ltd., Plot no M-2, MIDC, Tarapur on 11.01.2020, finally concluded the cause of the accident and suggested exhaustive remedial measures in this report to avoid such accidents in future.

#### NAMES, DESIGNATIONS AND SIGNATURES OF THE COMMITTEE MEMBERS

(Enquiry committee for the accident occurred in M/s ANK Pharma Pvt. Ltd, Plot no. M-2, MIDC, Tarapur, Dist- Palghar)

- 1) Shri. Shivaji Daund, IAS  
Divisional Commissioner, Konkan Division  
Navi Mumbai.



: Chairman

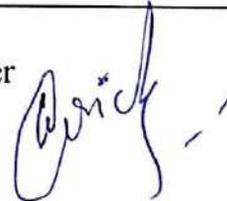
- 2) Dr. Mahendra Kalyankar, IAS  
Director, Industrial Safety & Health, (I/c)  
Maharashtra State, Mumbai. &  
*Labour Commissioner*  
*(M.S.)*

: Member Secretary



- 3) Shri. Santosh Warick,  
Chief Fire officer, MIDC,  
Andheri, Mumbai.

: Member



**INDEX**

Chapter	Title	Page No.
1	Introduction	6-7
2	Government resolution for formation of Enquiry	8-10
3	Definitions of terminology used in this report	11-14
4	Information of Tarapur Industrial area	15-16
5	Information of M/s ANK Pharma Pvt Ltd.	17-19
6	Details about the accident	20-23
7	Details of mitigation and rescue operations	24-26
8	Information about the deceased and injured persons	27-28
9	Financial Aid from the Government	29-31
10	List of witnesses	32-33
11	First information report	34-37
12	DSC Test report	38-40
13	Cause of accident	41-42
14	Status of Permissions and licenses	43-55
15	Recommendations of the Committee for avoiding such type of incidents in future.	56-64
16	Photographs	65-70
17	Bibliography	71
18	Annexures	72-105

# CHAPTER 1

## INTRODUCTION

MIDC has developed about 1028.54 Hectares of land as Tarapur Industrial Area. Tarapur Industrial Area is situated about 102 km from the International Airport at Mumbai by road. The area is approachable by Western Railway and the nearest Railway station is Boisar, which is about 1.50 km from the Tarapur Industrial Area. The area is also approachable from Mumbai-Ahmedabad NH-8 from Chillarphata, which is about 17 km to Tarapur Industrial Area.

Considering the proximity to sea, it was earlier proposed to establish Chemical industries in Tarapur Industrial Area. But as new industries were banned in Mumbai region, the entrepreneurs have rushed to Tarapur Industrial Area as an alternative to Mumbai. Therefore, Tarapur Industrial Area is roughly divided into two zones viz. Chemical zone & Engineering zone. 2109 nos. of plots are carved out for different industrial units.

"M/s ANK Pharma Pvt Ltd" situated at Plot No. M-2, MIDC, Tarapur. Activity of drugs intermediates manufacturing was being carried out in this factory. On the day of the accident i.e. on 11.01.2020 at about 07:00 pm there was massive explosion took place in this factory. The factory building (slabs, walls & columns) got major damages due to the explosion. In the said explosion, one adjacent factory got major damage and 03 factories in the surrounding got mild damages. 08 persons died and 07 persons were injured due to this explosion.

Rescue and mitigation operations were carried out by National Disaster Response Force (NDRF), Fire Department, Police Authorities, Revenue Department, Directorate of Industrial Safety & Health, Mutual Aid Response Group (MARG) members, Maharashtra Industrial Development Corporation (MIDC) etc. for two days continuously.

Government of Maharashtra has constituted an Enquiry Committee to find the cause of accident and suggest remedial measures to avoid reoccurrence of such accidents in future, Under Section 90 of the Factories Act, 1948.

Government of Maharashtra has approved a sum of rupees 4,000,000/- (Rs. 5,00,000/- to legal heirs of each deceased) under Hon. Chief Minister Relief Fund on 13.01.2020 as an ex-gratia to the legal heirs of the deceased persons and same were distributed.

## CHAPTER 2

### GOVERNMENT RESOLUTION FOR FORMATION OF ENQUIRY COMMITTEE

The Government of Maharashtra has formed a committee vide letter No. FAC-2020/07/Labour-4, Mantralaya, Mumbai-400032 dated 15.01.2020 as per Section 90 of The Factories Act,1948 under the Chairmanship of Divisional Commissioner, Konkan Division, Navi Mumbai to find the cause of this explosion and suggest remedial measures to avoid such type of accidents in future.

**Following are the members of the committee:-**

Sr.No	Name of the Committee Member and office	Designation
01	Divisional Commissioner, Konkan Division, Konkan Bhawan, Navi Mumbai.	Chairman
02	Director, Industrial Safety and Health, MS, Mumbai.	Member Secretary
03	Chief Fire Officer, M.I.D.C. Andheri, Mumbai	Member

The task of the committee members was to investigate the accident, to find out the cause of the accident and to suggest remedial measures to avoid the recurrence of similar kind of accidents in the future.

में.ए.एन.के फार्मा प्रा.लि., बोईसर जि.पालघर या कारखान्यात दिनांक ११.०१.२०२० रोजी झालेल्या अपघाताबाबत सखोल चौकशी व अशा घटनांची पुनरावृत्ती होवू नये या करीता समिती गठित करण्याबाबत.

महाराष्ट्र शासन  
उद्योग, उर्जा व कामगार विभाग,  
शासन निर्णय क्रमांक - एफएसी-२०२०/प्र.क्र.०७/कामगार-४  
हुतात्मा राजगुरु चौक, मादाम कामा रोड,  
मंत्रालय, मुंबई - ४०० ०३२.  
दिनांक : १५ जानेवारी, २०२०

**प्रस्तावना :-**

तारापूर औद्योगिक वसाहतीमध्ये कार्यरत असलेल्या में.ए.एन.के फार्मा प्रा.लि., प्लॉट नं.एम-२, बोईसर, जि.पालघर या कारखान्यात दिनांक ११.०१.२०२० रोजी संध्याकाळी ०७.०० वाजण्याच्या सुमारास ऑर्थोक्लोरो बेंझॉइक ॲसिडचे प्रायोगिक तत्वावर उत्पादन चालू होते. त्यासाठी ऑर्थोक्लोरो टॉलविन या रसायनामध्ये नायट्रीक ॲसिड या रसायनांचे मिश्रण करून नायट्रेशन या अभिक्रियेद्वारे उत्पादन चालू होते. सदर प्रक्रिया अत्यंत उष्मादायी (HIGHLY EXOTHERMIC) असल्याने रिॲक्टर मधील दाब प्रमाणाबाहेर वाढून प्रचंड स्फोट (EXPLOSION) झाला. या दुर्घटनेत ३ कामगार व अन्य ५ व्यक्ती असे एकूण ८ व्यक्तींचा मृत्यू झाला असून कारखान्याच्या संचालकासह ७ व्यक्ती जखमी झाल्या आहेत. सदर कारखान्याच्या इमारतीचे मोठ्या प्रमाणात नुकसान झाले आहे. व या स्फोटाच्या घटनेमुळे कारखान्यातील संयंत्राचा काही भाग कारखान्याच्या बाहेर फेकला गेला आहे. सदर दुर्घटनेची व्याप्ती ही मोठ्या स्वरूपाची असून सदर दुर्घटनेची कारणे शोधण्यासाठी चौकशी समिती गठित करण्याची बाब शासनाच्या विचाराधीन होती. याबाबत पुढीलप्रमाणे निर्णय घेण्यात येत आहे.

**शासन निर्णय :-**

तारापूर औद्योगिक वसाहतीमध्ये कार्यरत असलेल्या में.ए.एन.के फार्मा प्रा.लि., प्लॉट नं.एम-२, बोईसर, जि.पालघर या कारखान्यात दिनांक ११.०१.२०२० रोजी संध्याकाळी ७.०० वाजण्याच्या सुमारास रासायनिक प्रक्रिया सुरु असताना प्रचंड स्फोट झाला. सदर घटनेची व्याप्ती पाहता त्याची कारणे शोधण्यासाठी सखोल चौकशी होणे आवश्यक आहे. सदर अपघाताबाबतची सखोल चौकशी व अशा घटनांची भविष्यात पुनरावृत्ती होवू नये म्हणून कारखाने अधिनियम, १९४८ च्या कलम ९० मधील तरतूदीनुसार शासनास प्रदान करण्यात आलेल्या अधिकारान्वये खालीलप्रमाणे समिती गठित करण्यात येत आहे.

अ.क्र.	पदाधिकारी	समितीवरील सदस्याचे पदनाम
१.	विभागीय आयुक्त, कोकण विभाग, कोकण भवन, नवी मुंबई	अध्यक्ष
२.	मुख्य अग्निशमन अधिकारी, एमआयडीसी, अंधेरी, मुंबई	सदस्य
३.	संचालक, औद्योगिक सुरक्षा व आरोग्य संचालनालय, मुंबई	सदस्य सचिव

२. सदर समितीने तारापूर औद्योगिक वसाहतीमध्ये कार्यरत असलेल्या मे.ए.एन.के फार्मा प्रा.लि., प्लॉट नं.एम-२, बोईसर जि.पालघर या कारखान्यात दिनांक ११.०१.२०२० रोजी झालेल्या अपघाताबाबत सखोल चौकशी करुन सविस्तर अहवाल एक महिन्यात शासनास सादर करावा. सदर अहवालातील निष्कर्षाच्या आधारे पुढील निर्णय घेण्यात येईल. तसेच भविष्यात अशा प्रकारच्या अपघाताची पुनरावृत्ती होवू नये, याबाबतच्या उपाययोजनां देखील सूचविण्यात याव्यात.

३. सदर शासन निर्णय महाराष्ट्र शासनाच्या [www.maharashtra.gov.in](http://www.maharashtra.gov.in) या संकेतस्थळावर उपलब्ध करण्यात आला असून त्याचा सांकेतांक २०२००११५११५८५७६७१० असा आहे. हा आदेश डिजिटल स्वाक्षरीने साक्षांकित करुन काढण्यात येत आहे.

महाराष्ट्राचे राज्यपाल यांच्या आदेशानुसार व नावाने,

**Rajendra S  
Kaurte**

Digitally signed by Rajendra S Kaurte  
DN: c=IN, o=Government of Maharashtra, ou=Industries Energy  
and Labour Department, postalCode=400032, st=Maharashtra,  
2.5.4.30+rdn=718059ca2c27699e248117a10b6ade281b31a4  
82e01c2eeb6f9485,  
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118a6c7aff604a43e68, cn=Rajendra S Kaurte  
Date: 2020.01.11 11:39:46 +05:30

( रा.शा.कौरते )

अवर सचिव, महाराष्ट्र शासन

प्रत,

१. मा. मुख्यमंत्री यांचे प्रधान सचिव, मंत्रालय, मुंबई.
२. मा.उपमुख्यमंत्री, यांचे खाजगी सचिव, मंत्रालय, मुंबई.
३. मा.मंत्री (कामगार), मंत्रालय, मुंबई.
४. मा.मंत्री (उद्योग), मंत्रालय, मुंबई.
५. मा.मंत्री (पर्यावरण), मंत्रालय, मुंबई.
६. मा.राज्यमंत्री (कामगार), मंत्रालय, मुंबई
७. मा.राज्यमंत्री (उद्योग), मंत्रालय, मुंबई
८. मा.राज्यमंत्री (पर्यावरण), मंत्रालय, मुंबई.
९. अपर मुख्य सचिव (महसूल), महसूल व वन विभाग, मंत्रालय, मुंबई.
- १०.प्रधान सचिव (कामगार), उद्योग, ऊर्जा व कामगार विभाग, मंत्रालय, मुंबई- ४०० ०३२
- ११.प्रधान सचिव (उद्योग), उद्योग, ऊर्जा व कामगार विभाग, मंत्रालय, मुंबई- ४०० ०३२
- १२.प्रधान सचिव (पर्यावरण), पर्यावरण विभाग, मंत्रालय, मुंबई.
- १३.आयुक्त (कामगार), कामगार आयुक्तालय, कामगार भवन, बांद्रा (पू.) मुंबई-५१.
- १४.विभागीय आयुक्त, कोकण विभाग, कोकण भवन, नवी मुंबई
- १५.संचालक, औद्योगिक सुरक्षा व आरोग्य संचालनालय, मुंबई.
- १६.उप सचिव (कामगार-४), उद्योग, ऊर्जा व कामगार विभाग, मंत्रालय, मुंबई- ४०० ०३२.
- १७.मुख्य अग्निशमन अधिकारी, तारापूर एमआयडीसी, जि. पालघर
- १८.निवड नस्ती (कामगार-४)

## CHAPTER 3

### DEFINITIONS OF TERMINOLOGY USED IN THIS REPORT

1. **Section 90** of the Factories Act, 1948 reads as follows: Power to direct enquiry into cases of accidents or disease.-

The State Government may, if it considers it expedient so to do, appoint a Competent person to inquire into the causes of any accident occurring in a factory or in to any case where a disease specified in the third Schedule has been or is suspected to have been contracted in a factory, and may also appoint one or more persons possessing legal or special knowledge to act as assessors in such inquiry.

- i) The person appointed to hold an inquiry under this section shall have all the powers of a Civil Court under the Code of Civil Procedure, 1908 (5 of 1908), for the purposes of enforcing the attendance of witnesses and compelling the production of documents and material objects, and may also, so far as may be necessary for the purposes of the inquiry, exercise any of the powers of an Inspector under this Act, and every person required by the person making the inquiry to furnish any information shall be deemed to be legally bound so to do within the meaning of section 176 of the Indian Penal Code (45 of 1860).
- ii) The person holding an inquiry under this section shall make a report to the State Government stating the causes of the accident, or as the case may be, disease, and any attendant circumstances, and adding any observations which he or any of the assessors may think fit to make.
- iii) The State Government may, if it thinks fit, cause to be published any report made under this section or any extracts there from.
- iv) The State Government may make rules for regulating the procedure as inquiries under this section.

2. **“Hazardous process”** : As per section 2 (cb) of Factories Act, 1948, Hazardous process means any process or activity in relation to an industry specified to the First Schedule under the said section where, unless special care is taken, raw materials used therein or the intermediate or finished products, bye-products, wastes or effluents thereof would—(i) cause material impairment to the health of the persons engaged in or connected therewith, or (ii) result in the pollution of the general environment: Provided that the State Government may, by notification in the Official Gazette, amend the First Schedule by way of addition, omission or variation of any industry specified in the said Schedule.
3. **“Power”**: As per section 2(g) of Factories Act, 1948, Power means electrical energy, or any other form of energy which is mechanically transmitted and is not generated by human or animal agency.
4. **“Manufacturing Process”**: As per section 2(k) of Factories Act, 1948 Manufacturing Process means any process for-
- i. Making, altering, repairing, ornamenting, finishing, packing, oiling, washing, cleaning, breaking up, demolishing, or otherwise treating or
  - ii. adapting any article or substance with a view to its use, sale, transport, delivery or disposal, or
  - iii. Pumping oil, water, sewage or any other substance, or
  - iv. Generating, transforming or transmitting power :or
  - v. Composing types for printing, printing by letter press, lithography, photogravure or other similar process or book binding :or
  - vi. Constructing, reconstructing, repairing, refitting, finishing or breaking up ships or vessels :or
  - vii. Preserving or storing any article in cold storage:
5. **“Worker”** : As per section 2(l) of Factories Act, 1948 worker means a person employed, directly or by or through any agency (including a contractor) with or without the knowledge of the principal employer, whether for remuneration or not, in any manufacturing process, or in

cleaning any part of the machinery or premises used for a manufacturing process, or in any other kind of work incidental to ,or connected with the manufacturing process, or the subject of the manufacturing process but does not include any member of the armed forces of the Union:

6. **“Occupier”**: As per section 2(n) of Factories Act, 1948 occupier means the person who has ultimate control over the affairs of the factory.
7. **“Explosive substance”**: As per Explosive Act, 1934 the expression “explosive substance” shall be deemed to include any materials for making any explosive substance: also any apparatus, machine, implement or material used, or intended to be used, or adapted for causing, or aiding in causing, any explosion in or with any explosive substance: also any part of any such apparatus, machine or implement.
8. **“Maintained”**: means maintained in an efficient state, in efficient working order and in good repair:
9. **“DSC Analysis”**: It is an analysis done using Differential Scanning Calorimeter.
10. **“Joules”**: It is unit of energy in the International system of units.1 Joule is equal to 0.2389 calories.
11. **“Thermal Stress”**: Stress introduced by uniform or non-uniform temperature change in a structure or material.
12. **“Runaway Reaction”**: A runaway reaction is a chemical reaction over which control has been lost. It continues to accelerate in reaction speed until it either runs out of reactants or the vessel containing it overpressures losing containment- frequently with high risk of injury and equipment damage.
13. **“MSDS”**: Material Safety Data Sheet which includes hazardous ingredient of the substances, physical & chemical characteristics of hazardous substances, physical hazards of the hazardous substance including the

potential for fire, explosion & reactivity, precaution for safe handling and use of hazardous substances, emergency and first aid procedures.

**14. "Flash Point":** Flash point of a flammable liquid is the lowest temperature at which there will be enough flammable vapors to ignite when an ignition source is applied.

**15. "Reactor":** Reactor is an enclosed volume in which a chemical reaction takes place.

## CHAPTER 4

### INFORMATION OF TARAPUR INDUSTRIAL AREA

Tarapur industrial Area is roughly divided into two zones viz. Chemical zone & Engineering zone. **2109** nos. of plots are carved out for different industrial units. The details are as below:-

Area of plots carved	=	<b>701.09 Hectares.</b>
Total No. of plots allotted	=	<b>1947 Nos.</b>
No. of units under construction	=	<b>73 Nos.</b>
Land rate of industrial plot	=	<b>Rs.2355/- sq. mtr.</b>
Residential	=	<b>Rs.3530/- per sq. mtr</b>
Commercial	=	<b>Rs.7060/- per sq. mtr.</b>

#### Industrial Units in Tarapur Industrial Area.

Salient Features		
Sr. No.	Particulars	Details
1	No. of plots carved out	2109 Nos.
2	No. of plots allotted	1947 Nos.
3	Industrial Units in existence	1477 Nos.
4	Industrial units whose water supply is in existence.	1226 Nos.
5	Units under Red Category	472
6	Units under Orange Category	155
7	Units under Green Category	850
8	Total CETP members	627
9	Capacity of W.S.S.	112.00 MLD(84 MLD--New

		WTP+28 MLD---Old WTP)
10	Present pumping	80.00 MLD
11	Total Industrial Assessment	50.00 MLD
12	UDDS – Pipeline	59.00 Km.
13	Drainage pipeline dia.	From 150 mm. to 1000 mm.
14	Point of disposal	Navapur creek in sea as approved by MPCB
15	Capacity of CETP	25.00 MLD(Existing)+50.00MLD(Proposed)
16	Pumping treated effluent from Sump-II	50-60Hrs.Avg.
17	Letting out effluent from Sump-II	55X600=33 MLD

Most of the factories from Tarapur MIDC area are registered under the Factories Act, 1948. Details of the same are as follows,

<b>Major Accident Hazard (MAH)</b>	<b>Chemical</b>	<b>Section (2cb) of the Factories Act, 1948 (Hazardous)</b>	<b>Others</b>	<b>Total</b>
19	283	213	478	993

## CHAPTER- 5

### INFORMATION OF M/S. ANK PHARMA PVT. LTD.

- 1) The factory, M/s ANK Pharma Pvt Ltd, Plot No. M-2, MIDC Tarapur, Dist- Palghar, is the hazardous factory started on 09.01.2011 employing about 15 workers. **This factory is not registered under Factories Act, 1948 and running without Factory License.**
- 2) The factory was engaged in the process of making drug intermediate like Ortho Chlorobenzoic Acid which is used as a raw material for manufacturing of another drug intermediate like Mefenamic Acid. Mefenamic Acid is being manufactured in M/s Alexo Chemicals, Plot no N-174, MIDC Tarapur which is sister concern factory of M/s ANK Pharma Pvt Ltd, M-2 and run by same occupier.
- 3) Ortho Chlorotoluene (99.5%) and Nitric Acid (58%) are the raw materials used for the manufacturing of Ortho Chlorobenzoic Acid.
- 4) Total area of the plot is 4000 square meter. The entrance of the factory is provided at the road side (North). Security cabin is constructed at the entrance near main gate. There is a three storied RCC building (Building 1) having ground and three floor construction at the left side of the entrance. Total construction area of that building is approximately 977.46 square meters. Two reactors are installed on the RCC platforms. One reactor is located at first floor where as another reactor is located at second floor of the factory building. Manufacturing process was being carried out in this building. Another RCC building (Building 2) is constructed at back side of the production building. This building is used for storage of raw materials and equipment. That RCC building is having ground plus two floor

construction. Total area of construction of that building is 1799.33 square meter. It is at about 60-70 meter distance from the production building.

- 5) A RCC building – 1 is having ground plus three floors with RCC Platforms at each floor. One office is provided at mezzanine floor and two rooms are provided beside the office where two families were residing. One reactor (cap-10 KL) is provided at first floor resting on RCC platform whereas another reactor is provided at second floor and it was still not taken in use. Baby Boiler (steam generator) with all its accessories is located at back side of the building near office at ground floor. Manufacturing of Ortho Chlorobenzoic Acid was being carried out in this building.
- 6) Details of Reactor which was used in manufacturing process as under -  
Make- M/s Bharat Industries, GIDC Industrial Area, Panoli, Gujrat, Capacity- 10 KL, Material of construction of this reactor is stainless steel Grade 316. This reactor was having SS limped coil through which steam/ water is circulated for heating/Cooling. 50 NB MS pipe is used to supply steam from steam boiler. Also 50 NB MS pipe is used to supply cooling water from overhead water tank. Cooling tower was not installed in the factory. One pressure gauge, one RTD (Resistance Temperature Detector) point and one safety valve are provided at pipeline of steam boiler. One of the 50 NB nozzle on reactor was used to fit RTD for temperature measurement. Reactor was having 25 NB nozzle for fitment of pressure gauge. It is observed that SS reactor was broken in three pieces. Half of portion was lying on ground floor of the factory and another two pieces were lying at about 25 to 30 feet from the factory building. Safety valves and rupture disc were not provided on the reactor shell. A helical gear box with motor drive was provided to rotate the stirrer.

Water pump is provided to circulate the water from overhead tank. Reaction mass was heated in the reactor by circulating steam/hot water in the

limped coil of reactor which was supplied by steam boiler. Utility shed is located at ground floor of plant where Boiler and pumps are installed.

**7. The General manufacturing process of OCBA is as follows.**

- i) SS reactor first cleaned by water.
- ii) Proportionate water is added into SS reactor.
- iii) 600 Kg of Nitric acid (58%) is added into reactor.
- iv) Proportionate quantity of Ortho-chlorotoluene is added into SS reactor.
- v) This mixture is kept in reactor and steam heating is started to reactor limped coil with continuous stirring to reach at required temperature.
- vi) Then limped coil of reactor is drained & cooling water circulation is started through limped coil and continued till next reaction is completed.
- vii) Then batch is taken to centrifuge.
- viii) Then batch is drained into trays and cools at room temperature
- ix) Finally OCBA is obtained.

## CHAPTER-6

### DETAILS ABOUT THE ACCIDENT

The reaction of Ortho-chlorotoluene (99.5%) by using nitric acid (58%) was going on 11/01/2020. The batch was charged by reactor Operator Shri. Mohan Ingale. Water first taken into SS reactor and then 600 kg of HNO<sub>3</sub> (58%) was added into it. Then Ortho-chlorotoluene was charged into reactor. The stirring and heating was started since 4.00 pm.

Since reaction of Ortho-Chlorotoluene with nitric acid is highly exothermic. This reaction might have become runaway due to one of the following reason – a) Steam heating is not stopped at predetermined temperature, b) Cold water circulation have not started , c) Failure of cooling water circulation pump, d) Failure of stirrer, e) Absence of cold water circulation through cooling tower.

As reaction became runaway, the temperature of reaction mass was continuously increasing leading to violent boiling and decomposition of the chemicals leading to sudden rise in pressure inside the reactor. As this reactor was not provided with safety valve and rupture disc for emergency venting of large quantities of vapors inside the reactor which leads to sudden explosion of the reactor. Explosion was so massive that it has caused rupture of the reactor, breaking of columns and beams adjacent to reactor, breaking of RCC slab of part of first floor, brick walls and glasses were thrown away.

Due to this explosion, SS reactor of thickness 22 mm got busted and torned in to three pieces vertically. Half of the portion was lying on the ground floor of the factory where half of the portion was thrown away at about 25-30 feet distance from production area and split in two pieces. The RCC structure, beams, columns, walls and slab of the first and ground floor got damaged. |The accessories of the reactor and steam boiler got damaged and thrown away. Compound walls and building walls of nearby factory M/s Galaxy Surfactants

Ltd, Plot no M-3 got damaged due to shock wave of the explosion.

During operation of reactor Mohan Ingle, Operator was standing near the reactor, due to impact he died on the spot. Whereas Watchman Ilias Bashir Ansari was near security cabin, he has got hit by debris due to which he has died on the spot. Mr. Natwarlal Patel, the Director was standing near ETP, also got hit by debris and broken window glasses due to which he got severe multiple injuries. Now he is under medical treatment at Wockhardt Hospital, Mira Road. Mr. Mulayam Jagatbahadur Yadav was standing near another building in same premises which is about 70 feet away from the production area, he also hit by debris and got injuries on his chest, head, face and back, he was admitted at Thunga Hospital, Boisar for medical treatment. He got discharged on 29/01/2020. Mr. Rakesh Kumar Rajput was working at ground floor he also hit by debris and got injuries on his head near right side ear and he was admitted at Thunga Hospital, Boisar. After treatment he got discharge on 13.01.2020. Trinath Dasri, lift maintenance technician had come to the factory for lift erection work, he also trapped in the debris and died on the spot. In this factory building, 02 families were residing inside. From these families, Nishu Rahul Singh (Factory worker), Madhuri Vasishta Singh (Factory worker), Golu Surendra Yadav (Family Member), Rajmati Devi Surendra Yadav (Factory worker) and Khushi Yadav (Family Member) are died on the spot due to trapping inside the debris whereas family members Mr. Sachin Rambabu Yadav, Mr. Rohit Vasishta Singh, Prachi Rahul Singh and Rutika Rahul Singh got injured due to hitting of debris. Out of these injured Mr. Sachin Rambabu Yadav, Mr. Rohit Vasishta Singh were admitted in Thunga Hospital for treatment. After treatment Mr. Sachin Rambabu Yadav has got discharged on 15.01.2020. Whereas Mr. Rohit Vasishta Singh has got discharged on 25.01.2020. Prachi Rahul Singh and Rutika Rahul Singh have got minor injuries on body hence after first aid treatment they allowed to go at home on same day of explosion i.e. 11.01.2020. They were treated on OPD basis.

In this incidence, 01 adjacent factory got major damaged causing loss of about Rs. 51 lakh whereas surrounding three factories got mild damaged. Glass windows, doors, compound walls, AC Sheet roofs of the factories in the vicinity were damaged due to the shock wave formed because of the explosion.

The details of the SS 10 KL reactor used to carry out the process are as follows:

- a) Reactor Type: Stainless Steel Reactor with limped coil and stirrer
- b) Reactor Capacity: 10 KL
- c) Material of construction : Stainless Steel(SS-316)
- d) Length of Reactor : 4960 mm
- e) Internal Diameter of Reactor : 1756 mm
- f) Outer diameter with jacket : 1800mm
- g) Thickness of reactor - 22 mm
- h) Reactor bottom outlet : 80 mm
- i) Stirrer Motor: 20 HP/1440 RPM, Make - Crompton, with gear box Make Bonfiglioli, Model AS 90
- j) Top openings of Reactor: 18.11 inch manhole, 25 NB nozzle for temperature sensor, 40 NB nozzle for vent, 50 NB nozzle for HNO<sub>3</sub> charging, 150 NB nozzle for column collection, 80 NB nozzle for Ortho Chlorotoluene addition.
- k) Limped Coil: Material of construction –SS304, 50 NB 4 number of nozzles for steam In/Out and cooling water In/Out.
- l) Design pressure of reactor – 18 Kg/Cm. Sq.
- m) Working pressure of reactor- 15 Kg/Cm. Sq.
- n) Design temperature of reactor – 180 deg. cent.
- o) Working temperature of reactor – 150 deg. cent.

**Loss of property: -**

- I)** Plant and Machinery of M/s ANK Pharma Pvt. Ltd: - In this explosion some of the RCC columns, beams, slabs, security cabin, compound wall & walls of building 1 having area approximately 977.46 sq. meter are damaged. The machineries such as 1 SS reactor, accessories of baby boiler, centrifuge, water pipelines, ETP are damaged in the explosion. Some vehicles parked near main gate are also damaged due to hitting of debris.
- II)** Plant and Machinery of affected neighbouring factories: -
- a) M/s Galaxy surfactant Ltd, Plot No-M-3:- compound wall adjacent to M/s. ANK Pharma was collapsed. Factory building walls facing plot M-2 side, glass windows of factory building & false ceilings also got damaged in this explosion causing approx. loss of Rs 51 lakh.
- b) M/s Vikas Chemicals Plot No L-39:- Glass windows, AC sheets roofing & FRP tank damaged resulting release of spend acid of 4 Kl causing approx. loss of Rs 20,000.
- c) M/s Beekay Tex, Plot No- L-38:- Glass windows & material damage causing approximate loss of Rs 2 lakh.
- d) M/s Microtech Polytech Pvt Ltd, Plot No- L-60, 61:- Glass windows, AC sheets roofing etc. damage causing approximate loss of Rs 2 lakh.

## CHAPTER 7

### DETAILS OF MITIGATION AND RESCUE OPERATIONS

A rescue and mitigation operation was carried out immediately after the explosion. Fire Department, Police Department, Revenue Department, Directorate of Industrial Safety & Health, Mutual Aid Response Group members (MARG), NDRF(National Disaster Response Force), MIDC etc. actively carried out the rescue & mitigation operations on 11.01.2020 & 12.01.2020 .

Details of rescue and mitigation operations are as follows:-

Day 1 (11.01.2020).

- ❖ Incident happened at around 07:00 pm.
- ❖ MARG members of Tarapur Industrial area, reached at the site in few minutes after the explosion. Factory building, compound wall etc. of M/s ANK Pharma Pvt Ltd. has got major damages. A SS Reactor was broken in to three pieces. One piece was lying on the ground floor of the factory and two pieces were thrown away at 25-30 feet away from the factory building. Watchman cabin wall collapsed and cabin got full of debris. A wall compound between M/s Galaxy Surfactants Ltd, M-3 and M/s ANK Pharma Pvt Ltd was collapsed. Beams and columns of the factory got severe damage. RCC roof of first floor of the factory is collapsed and debris of the walls thrown away at about 40 feet distance. A small crater of around 7 feet diameter & about 3 feet deep was formed at the site due to the impact of the explosion. Fire brigade team and fire tenders reached the spot within few minutes of the explosion.

- ❖ Officials from Directorate of Industrial safety & Health, Police Department, Revenue Department etc. reached at the site.
- ❖ Injured persons from the surrounding factories were taken to various ambulance vans with the help of police & local people and shifted to Thunga Hospital, Boisar for medical treatment.
- ❖ Police department officials barricaded the area and controlled the traffic on the road.
- ❖ Then operation of removing debris from the site was started with the help of Earthmovers / JCB etc. under the guidance of Collector, Palghar.
- ❖ Operations for removal of debris from the site were done very carefully. All MARG team members actively participated and co-ordinated with government departments to remove the dead bodies from the debris.
- ❖ Search operation for injured and deceased persons was carried out simultaneously along with other rescue teams.
- ❖ Rescue operation of the first day was carried out continuously and the whole area was cordoned by the Police Department.
- ❖ Till midnight about 07 injured were shifted to Thunga Hospital, Boisar and 06 dead bodies were recovered from the debris.

### **2<sup>nd</sup> Day (12.01.2020)**

- ❖ NDRF team has reached to the accident spot at about midnight 12.30 am. After making search operation in night, NDRF started work at about 07.00 am.
- ❖ Operation for removing debris was started under the guidance of MARG members & DISH officials. This was carried out very carefully as there was possibility of hazardous chemicals may present inside the factory building.

- ❖ DISH officials and MARG team with fire officer and NDRF team inspected the site thoroughly to check the storage of chemicals at site. During search operation, storage of OCT was found in another nearby building, OCT was stored in HDPE barrels at ground floor of nearby building.
- ❖ At around 11 am, two dead bodies were recovered from the debris and at about 12.30 pm search and rescue operation was completed. MARG team with fire officer and NDRF officer inspected the site thoroughly to check the storage of chemicals at site.
- ❖ During 2 days of rescue & mitigation operations, total 8 dead bodies were recovered from the site.
- ❖ Names of MARG Members who actively participated in rescue & mitigation operations are as follows.
  - 1) Mr. Arun Sawant (M/s Shraddha Safety Services)
  - 2) Mr. Baban Jadhav (M/s JSW Steel Ltd)
  - 3) Mr. Pankaj Gautam (M/s Aarti Industries Ltd)
  - 4) Mr. Yogesh Sankhe (M/s Galaxy Surfactants)

## CHAPTER-8

### INFORMATION ABOUT DECEASED AND INJURED PERSONS

1. In this incidence following 08 persons were died.

Sr No	Name of Deceased	Age	Gender	Nature of work
1	Ilias Bashir Ansari	40 years	Male	Watchman/ Security person
2	Nishu Rahul Singh	26 years	Female	Worker of the factory who residing in factory building
3	Madhuri Vasistha Singh	46 years	Female	Worker of the factory who residing in factory building
4	Golu Surendra Yadav	19 years	Male	Family member of worker residing in Factory building
5	Rajmatidevi Surendra Yadav	40 years	Female	Worker of the factory who residing in factory building
6	Mohan Ingle	45 years	Male	Plant Operator
7	Trinath Dasri	40 years	Male	Lift maintenance Worker who came for lift erection work on the day of explosion
8	Khushi Yadav	14 years	Female	Family member of worker residing in Factory building

2. Following 7 persons were injured-

Sr No	Name of Injured	Age	Gender	Nature of work	Nature of injury	Date of discharge
1	Shri Mulayam Jagatbahadur Yadav	22 years	Male	Factory Worker	Injuries on chest, back, abrasions on	29/01/2020

					head, swelling on face	
2	Shri Rakesh Kumar Rajput	55 years	Male	Factory Worker	Minor injury on face near right ear	13/01/2020
3	Shri Sachinkumar Rambabu Yadav	20 years	Male	Family member of worker residing in Factory building	Minor injuries on face & hand, multiple abrasions on body.	15/01/2020
4	Shri Rohit Vasistha Singh	19 years	Male	Family member of worker residing in Factory building	Injuries on chest, back, head, face, abrasions on body.	25/01/2020
5	Shri Natwarlal Patel	56 years	Male	Director of the factory	Multiple Serious injuries to face, head, stomach, fracture of legs, penetration of glass pieces in the intestine.	Under Medical treatment at Wockhardt Hospital, Mira Road
6	Prachi Rahul Singh	6 years	Female	Family member of worker residing in Factory building	Minor injuries on face and head	Not admitted, treated on OPD basis.
7	Rutika Rahul Singh	3 years	Female	Family member of worker residing in Factory building	Minor injuries on face and head	Not admitted, treated on OPD basis.

## CHAPTER 9

## FINANCIAL AID FROM THE GOVERNMENT

As per letter No. MMN-1020/Palghar-Tarapur/04/2020 dated 13/01/2020 issued by, Mantralaya Mumbai, Hon. Chief Minister of Maharashtra has sanctioned Rs 4,000,000 to Collector Palghar for disburse of Rs 5,00,000 each to the next keen of the eight deceased persons.

क्रमांक : मुमनि-1020/पालघर/तारापूर-बोईसर/प्र.क्र.4 /2020



मुख्यमंत्री सचिवालय  
मंत्रालय, मुंबई ४०० ०३२  
www.maharashtra.gov.in

दिनांक : 13 JAN 2020

(PL/20/0153)

L-1579678001992

प्रति,

जिल्हाधिकारी,  
पालघर,  
जिल्हा पालघर - 401404.

विषय : मुख्यमंत्री सहाय्यता निधीतून अर्थसहाय्य  
संदर्भ : क्र. सामान्य/टे.2/मुख्यमंत्रीसहानिधी/कावि-19/2020, दि. 12.01.2020

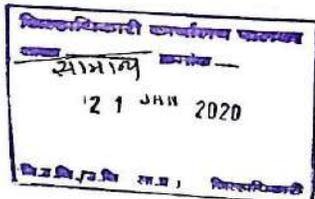
महोदय,

उपरोक्त संदर्भीय पत्रानुसार, दि. 11.01.2020 रोजी तारापूर-बोईसर औद्योगिक परिसरात ANK Pharma, Plot no. M 13 Tarapur MIDC कंपनीतील स्फोटित इलियास बशिर अन्सारी, निशु राहुल सिंग, माधुरी वशिष्ठ सिंग, गोलु सुरेंद्र यादव, राजमती देवी सुरेंद्र यादव, मोहन इंगळे, त्रिनाथ दासरी, खुशी सुरेंद्र यादव हे मृत्यू पावले. मा. मुख्यमंत्री महोदयांनी, मुख्यमंत्री सहाय्यता निधीतून मृतांच्या वारसांना प्रत्येकी रु. 5.00 लक्ष (रुपये पाच लक्ष फक्त) असे एकुण रु.40.00 लक्ष (रुपये चाळीस लक्ष फक्त) इतके अर्थसहाय्य मंजूर केले आहे.

सदरहू मंजूर अर्थसहाय्य एकुण रु.40.00 लक्ष (रुपये चाळीस लक्ष फक्त) मुख्यमंत्री सहाय्यता निधीच्या स्टेट बँक ऑफ इंडिया, मुंबई मुख्य शाखा, मुंबई समाचार मार्ग, फोर्ट, मुंबई शाखेतून जिल्हाधिकारी, पालघर यांच्या नावे असलेल्या स्टेट बँक ऑफ इंडिया, पालघर शाखेतील बँक खाते क्रमांक 37233170316 मध्ये परस्पर वर्ग करण्यात आले आहे.

मंजूर अर्थसहाय्याचे वाटप मृत व्यक्तींच्या कायदेशीर वारसांस आवश्यक ती संपूर्ण पडताळणी करून करण्यात यावे व अर्थसहाय्य प्राप्त झाल्याबद्दल महसुल मुद्रांकित पावती या सचिवालयास सत्वर पाठवावी. तसेच निधीच्या रकमेचा विनियोग तात्काळ न झाल्यास, सदर रक्कम मुख्यमंत्री सहाय्यता निधीच्या खाते क्रमांक 10972433751, स्टेट बँक ऑफ इंडिया, मुख्य शाखा, फोर्ट, मुंबई या खात्यात तात्काळ वर्ग करून या सचिवालयास तसे अवगत करावे.

कृपया अर्थसहाय्य प्राप्त झाल्याची पोच पावती द्यावी.



आपला,

  
(सुभाष शा. नागप)  
सहायक संचालक (निधी व लेखा)

**तहसिलदार तथा कार्यकारी दंडाधिकारी पालघर यांचे कार्यालय**  
**कचेरी रोड, पालघर ता. जि. पालघर पिन कोड नं. ४०१४०४**

दुरध्वानी क्रमांक ०२५२५/२५४९३०

E Mail ID :- tahpalghar@gmail.com

क्रमांक/महसूल/संकीर्ण/नै. आ./कावि-

१२/२० दिनांक :- १५/०१/२०२०

प्रति,

मा. जिल्हाधिकारी पालघर

**विषय :-** विषय :- मुख्यमंत्री सहाय्यता निधीतील मदतीचा धनादेश मयत व्यक्तींच्या वारसांना वितरीत केलेबाबत.

**संदर्भ :-** आपले कार्यालयाकडील पत्र क्र. सामान्य/टे.२/ मुख्यमंत्रीसहानिधी /कावि२७/२०२०, दिनांक १४/०१/२०२०

उपरोक्त संदर्भिय विषयानुसार दिनांक ११/०१/२०२० रोजी सांयकाळी ७.०० च्या सुमारास तारापूर - बोईसर औद्योगिक परिसरातील ANK Pharma Pvt. Ltd प्लॉट नं. M-१३ येथे झालेल्या स्फोटामध्ये आठ व्यक्तींचा मृत्यू झाला आहे. सदर स्फोटामध्ये मयत झालेल्या व्यक्तींच्या वारसांना मा. मुख्यमंत्री सहाय्यता निधीमधून प्रत्येकी र.रु. ५,००,०००/- मदत जाहिर करण्यात आली आहे. त्याप्रमाणे आपले कार्यालयाकडून संदर्भिय पत्रासोबत धनादेश या कार्यालयास प्राप्त झाले आहे. सदरचे धनादेश हे संदर्भिय पत्राप्रमाणे मयत व्यक्तींच्या वारसांना मा. राजेंद्र गावित, लोकसभा सदस्य, पालघर, मा. श्रीनिवास वनगा विधानसभा सदस्य पालघर तसेच श्री. राजेश पाटील, विधानसभा सदस्य बोईसर यांचेहस्ते वितरीत करण्यात आलेले आहे. त्यापैकी मोहन सुर्यभान इंगळे यांचे वारस श्रीम. मंगला मोहन इंगळे या त्यांचे मुळ गावी रा. तालसवाड ता. मलकापूर जि. बुलडाणा येथे असल्यामुळे त्यांना मदतीचा धनादेश देणेकामी या कार्यालयातील श्री. अनिल वायाळ, मंडळ अधिकारी, तारापूर यांना मयत व्यक्तींच्या मुळ गावी पाठविले आहे.

तसेच त्रिनाथ दासरी यांचे वारसचौकशी कामी तहसिलदार ठाणे व कल्याण यांना या कार्यालयामार्फत पत्र देण्यात आलेले आहे. परंतु त्यांचे वारस हे त्यांच्या दिलेल्या पत्त्यावर राहत नसल्यामुळे त्यांच्या वारसाबाबत अधिक माहिती उपलब्ध झालेली नाही. तरी त्यांच्या वारसाबाबत माहिती प्राप्त होताच आपणास कळविण्याबाबत दक्षता घेतली आहे. तरी वितरीत करण्यात आलेल्या धनादेशाची पोहोच पावती आपले माहितीसाठी व पुढील कार्यवाहीसाठी सविनय सादर करीत आहोत.

स्थळप्रतिवर मा. तहसिलदार यांची स्वाक्षरी असे.

  
 तहसिलदार पालघर

## पावती

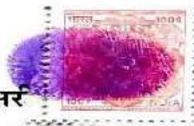
दिनांक १५/०१/२०२०

दिनांक ११/०१/२०२० रोजी सांयकाळी ७.०० च्या सुमारास तारापूर - बोईसर औद्योगिक परिसरातील ANK Pharma Pvt. Ltd प्लॉट नं. M-१३ येथे झालेल्या स्फोटामध्ये मोहन सुर्यभान इंगळे वय ५५ वर्षे रा.बोईसर ता. पालघर हे मयत झाले आहेत. त्याअनुषंगाने मा. मुख्यमंत्री सहाय्यता निधीमधुन सदर अपघातामध्ये मयत झालेल्या व्यक्तींच्या वारसांना मा. मुख्यमंत्री महोदय महाराष्ट्र राज्य यांनी पाच लाख रुपये मात्र सानुग्रह मदत जाहीर केली आहे. त्याप्रमाणे मयत मोहन सुर्यभान इंगळे यांचे वारस श्री. मंगला सुर्यभान इंगळे यांना रक्कम रुपये ५०००००/- (अक्षरी रक्कम रुपये रुपये पाच लाख) भारतीय स्टेट बँक शाखा, पालघरचा धनादेश क्रमांक - १९३१६३ दिनांक १४/०१/२०२० रोजीचा देण्यात येत आहे.

समक्ष

  
तहसिलदार, पालघर.

वारसाची स्वाक्षरी

नाव :-   
श्री. मंगला सुर्यभान इंगळे

साक्षीदार  
१) ज्योतम जाधवराव बेसठ  
रा. तळसनाडा  
२) ज्योतिदा मोहन इंगळे  
रा. तळसनाडा

## पावती

दिनांक २३/०१/२०२०

दिनांक ११/०१/२०२० रोजी सांयकाळी ७.०० च्या सुमारास तारापूर - बोईसर औद्योगिक परिसरातील ANK Pharma Pvt. Ltd प्लॉट नं. M-१३ येथे झालेल्या स्फोटामध्ये त्रिनाथ दिल्ली दासरी वय ४० वर्षे रा.प्लॉट नं.३०६, एम्पायर हाऊस, बी.आर. नगर साई सद्गुरू भवन च्या जवळ, दिवा(पू.), ठाणे हे मयत झाले आहेत. त्याअनुषंगाने मा. मुख्यमंत्री सहाय्यता निधीमधुन सदर अपघातामध्ये मयत झालेल्या व्यक्तींच्या वारसांना मा. मुख्यमंत्री महोदय महाराष्ट्र राज्य यांनी पाच लाख रुपये मात्र सानुग्रह मदत जाहीर केली आहे. त्याप्रमाणे मयत त्रिनाथ दिल्ली दासरी यांचे वारस श्रीम. जयंती त्रिनाथ दासरी यांना रक्कम रुपये ५०००००/- (अक्षरी रक्कम रुपये रुपये पाच लाख) भारतीय स्टेट बँक शाखा, पालघरचा धनादेश क्रमांक - १९३१६५ दिनांक २०/०१/२०२० रोजीचा देण्यात येत आहे.

समक्ष

  
नायब तहसिलदार  
संजय गांधी योजना, पालघर

वारसाची स्वाक्षरी

नाव :-   
श्री. जयंती

## CHAPTER 10

### LIST OF WITNESSES

**List of witnesses whose statements are recorded before Deputy Director, Industrial Safety and Health:-**

Sr. No.	Date	Name	Designation/Nature of work	Place	Original copies in possession of
1	12/01/2020	Shri Atul Gopal Mahajan	Production Officer	Alexo Chemicals	Dy. Director, DISH, Vasai, Palghar
2	12/01/2020	Shri Rupsingh Prithvirajsingh Gaud	Plant Operator	Alexo Chemicals	Dy. Director, DISH, Vasai, Palghar
3	12/01/2020	Shri Sanjay Tryambak Barhate	Quality Assurance Manager	Alexo Chemicals	Dy. Director, DISH, Vasai, Palghar
4	12/01/2020	Shri Mulayam Jagatbahadur Yadav	Pipe fitting welder	Thunga Hospital, Tarapur	Dy. Director, DISH, Vasai, Palghar
5	13/01/2020	Shri Rakesh Kumar Rajput	Helper	Thunga Hospital, Tarapur	Dy. Director, DISH, Vasai, Palghar
6	17/01/2020	Shri Rohit Vasishta Singh	Family member of worker residing in Factory building	Thunga Hospital, Tarapur	Dy. Director, DISH, Vasai, Palghar

**List of witnesses whose statements are recorded before Police Inspector, MIDC  
Police Station, Boisar:-**

<b>Sr. No.</b>	<b>Date</b>	<b>Name</b>	<b>Designation/ Nature of work</b>	<b>Place</b>	<b>Original copies in possession of</b>
1	18/01/2020	Shri Rohit Vasishta Singh	Family member of worker residing in Factory building	Thunga Hospital, Tarapur	PI, MIDC Police station, Boisar
2	19/01/2020	Shri Rupsingh Prithvirajsingh Gaud	Plant Operator	Alexo Chemicals	PI, MIDC Police station, Boisar
3	18/01/2020	Shri. Navin Krishna Nandsingh	Superviosr- Siyaram Textiles	Thunga Hospital, Tarapur	PI, MIDC Police station, Boisar
4	18/01/2020	Shri. Vasishta Madan Singh	Security guard & family member of worker residing in Factory building	Thunga Hospital, Tarapur	PI, MIDC Police station, Boisar
5	18/01/2020	Shri. Surendra B. Yadav	Family member of worker residing in Factory building	Thunga Hospital, Tarapur	PI, MIDC Police station, Boisar
6	21/01/2020	Smt. Asma Bano Eliyas Ansari	Family member of Security guard of M/s ANk pharma Pvt Ltd	MIDC Police station, Boisar	PI, MIDC Police station, Boisar
7	25/01/2020	Shri. Shahnur Khalil Mominjular	Family member of Security guard of M/s ANk pharma Pvt Ltd.	MIDC Police station, Boisar	PI, MIDC Police station, Boisar
8	25/01/2020	Shri. Rohit Vasishta Singh	Family member of worker residing in Factory building	Thunga Hospital, Tarapur	PI, MIDC Police station, Boisar
9	21/01/2020	Shri. Mulayam Jagatbahadur Yadav	Worker of M/s ANK Pharma	Thunga Hospital, Tarapur	PI, MIDC Police station, Boisar

## CHAPTER 11

## FIRST INFORMATION REPORT

N.C.R.B (एन.सी.आर.बी)

I.I.F.-I (एकीकृत अन्वेषण फॉर्म - १)

## FIRST INFORMATION REPORT

(Under Section 154 Cr.P.C.)

प्रथम खबर अहवाल  
(कलम १५४ फौजदारी प्रक्रिया संहिता)

1. District (जिल्हा): पालघर

P.S.(ठाणे): भोईसर

Year (वर्ष): 2020

FIR No.(प्रथम खबर क्र.): 0014

Date and Time of FIR (प्र. ख. दिनांक आणि वेळ): 16/01/2020 22:54 बजे

S.No. (अ.क्र.)	Acts (अधिनियम)	Sections (कलम)
1	भारतीय दंड संहिता १८६०	304-A
2	भारतीय दंड संहिता १८६०	२८६
3	भारतीय दंड संहिता १८६०	३३७
4	भारतीय दंड संहिता १८६०	४२७

3. (a) Occurrence of offence (गुन्ह्याची घटना):

1. Day(दिवस): शनिवार

Date From (दिनांक पासून): 11/01/2020

Time Period पहर 7  
(कालावधी):

Date To (दिनांक पर्यंत): 11/01/2020

Time From (वेळेपासून): 18:50 बजे

Time To (वेळेपर्यंत): 19:00 बजे

(b) Information received at P.S. (माहिती मिळालेले पोलीस ठाणे):

Date (दिनांक): 16/01/2020

Time (वेळ): 21:00 बजे

(c) General Diary Reference (रोजनामचा संदर्भ)

Entry No. (नोंद क्र.): 040

Date &amp; Time (दिनांक आणि वेळ): 16/01/2020 22:26 बजे

4. Type of Information (माहितीचा प्रकार): लेखी

5. Place of Occurrence (घटनास्थळ):

1.(a) Direction and distance from P.S.(पोलीस ठाण्यापासून दिशा व अंतर): पश्चिम, 1.5 किमी

Beat No. (बिट क्र.):

(b) Address (पत्ता): बोईसर MIDC मधील, प्लॉट नंबर M 2 येथील अंक, फॉर्मा या कंपनीमध्ये बोईसर, पालघर

(c) In case, outside the limit of this Police Station, then (या पोलीस ठाण्याच्या हद्दीबाहेर असल्यास):

Name of P.S.(पोलीस ठाण्याचे नाव):

District(State) (जिल्हा(राज्य)):

## 6. Complainant / Informant (तक्रारदार/माहिती देणारा):

(a) Name (नाव): प्रदिप श्रीपती पाटील सहाय्यक पोलीस निरीक्षक

(b) Father's/Husband's Name (वडील / पती चे

(c) Date/Year of Birth (जन्म तारीख/वर्ष): 1982

(d) Nationality (राष्ट्रीयत्व): भारत

(e) UID No. (यु.आय.डी. क्र.):

(f) Passport No. (पारपत्र क्र.):

Date of Issue (दिल्याची तारीख):

Place of Issue (दिल्याचे ठिकाण):

(g) Id details (Ration Card, Voter ID Card, Passport, UID No., Driving License, PAN)

ओळखपत्र विवरण (राशन कार्ड, मतदाता कार्ड, पासपोर्ट, यूआईडी सं., ड्राइविंग लाइसेंस, पॅन कार्ड)

S.No.(अ. क्र.)	Id Type (ओळखपत्राचा प्रकार)	Id Number (ओळखपत्राचा क्रमांक)
1		

(h) Address (पत्ता):

S.No.(अ. क्र.)	Address Type (पत्त्याचा प्रकार)	Address (पत्ता)
1	वर्तमान पता	बोईसर पोलीस ठाणे, पालघर, बोईसर, पालघर, महाराष्ट्र, भारत
2	स्थायी पता	बोईसर पोलीस ठाणे, पालघर, बोईसर, पालघर, महाराष्ट्र, भारत

(i) Occupation (व्यवसाय): पोलीस अधिकारी

(j) Phone number (फोन नं.):

Mobile (मोबाइल नं.): 91-7776000524

## 7. Details of known/suspected/unknown accused with full particulars (माहित असलेल्या /संशयित/अनोळखी आरोपीचा संपूर्ण पत्ता):

S.No. (अ.क्र.)	Name (नाव)	Alias (उर्फनाव)	Relative's Name (नातेवाईकाचे नाव)	Present Address (वर्तमान पता)
1	नटवरलाल बी. पटेल			1. अक फॉर्मा प्लॉट, नंबर एम 2 कंपनीचे मालक, बोईसर, बोईसर, पालघर, महाराष्ट्र, भारत

## 8. Reasons for delay in reporting by the complainant/informant (तक्रारदार/माहिती देणा-याकडून तक्रार करण्यातील विलंबाची कारणे):

## 9. Particulars of properties of interest (संबंधित मालमत्तेचा तपशील):

S.No. (अ.क्र.)	Property Category (मालमत्ता वर्ग)	Property Type (मालमत्ता प्रकार)	Description (वर्णन)	Value (In Rs/-) (मुल्य (रु. मध्ये))

## 10 Total value of property (In Rs/-)-(चोरीस गेलेल्या मालमत्तेचे एकूण मुल्य (रु. मध्ये)):

## 11 Inquest Report / U.D. case No., if any (इन्क्वेस्ट अहवाल/ अकस्मात मृत्यू प्रकरण क्र., जर असल्यास):

S.No. (अ. क्र.)	UIDB Number (यु.आय.डी. बी.क्र.)

## 12 First Information contents (प्रथम खबर हकीकत):

सहाय्यक पोलीस निरीक्षक, बोईसर पोलीस ठाणे मो.नं. 7776000524 सरकार तर्फे फिर्दा लिहून देतो की, आम्ही दिड वर्षांपासून बोईसर पोलीस ठाणे येथे सहाय्यक पोलीस निरीक्षक पदावर कर्तव्य बजावत आहे. आम्ही बोईसर पोलीस ठाण्याचे कुंभवली बिट अधिकारी म्हणून कर्तव्य बजावित असताना दि. 11/01/2020 रोजी पो. ठा. अंमलदार सफौ/एम.जे पाटील यांनी बोईसर पो. स्ट. अकस्मात मृत्यू रजि. नं. 06/2020 सी.आर.पी. सी. 174 प्रमाणे दि. 11/01/2020 रोजी दाखल करून यरीठांच्या आदेशाने अकस्मात मृत्यूची चौकशी आमच्याकडे दिल्याने आम्ही सदर अकस्मात मृत्यूची चौकशी हाती घेतली. अकस्मात मृत्यू मधील खबर देणार सुग्रीव आसाराम सिंग वय- 28 वर्षे व्यवसाय- फिर्दा दि. 16/01/2020

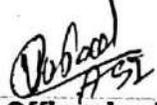
नोकरी रा. शिवाजीनगर, नवीन वस्ती, पांडेची चाळ, मुळ रा. भिडरुआ पो. कुया ता. सैफई जि. इटावा उत्तरप्रदेश यांनी खबर दिली की, दि. 11/01/2020 रोजी 18.50 वा.चे सुमारास कंपनीतील रिप्रेजेंटेटिव्ह स्फोट होवून कंपनीतील कामगार 1) इलियास बशिर अन्सारी वय- 45 वर्षे रा. शुक्ला कंपाऊंड बोईसर पालघर मुळ रा. नागपुर कामठी 2) माधुरी वशिष्ठ सिंग वय-46 वर्षे सध्या रा. अंक फार्मा कंपनी बोईसर मु. रा. बिहार 3) राजमती देवी सुरेंद्र यादव वय-40 वर्षे रा. सध्या रा. अ.क्र. 2 प्रमाणे मुळ रा. जि. छपरा, बिहार 4) मोहन सुर्यभान इंगळे वय- 55 वर्षे रा. सध्या ओस्तवाल वंडरसिटी तक्षशिला अपार्ट.विंग सी-5, रुम नं.5, बोईसर पालघर मुळ रा. तालसयाडा ता. मलकापुर जि. बुलदाणा ( कंपनीतील ऑपरेटर ), लिपट कामगार 5) त्रिनाथ डिह्री दासरी वय-40 वर्षे रा. सध्या नवी मुंबई दिया, ठाणे मुळ रा. मकरसोन ता. हिंजलीकाट, जि. गंजाम ओरीसा व कंपनीत राहणारे 6) निशु राहुल सिंग वय- 26 वर्षे रा. अंक फार्मा कंपनीत मुळ रा. जि. भोजपुर, बिहार 7) गोलु सुरेंद्र यादव वय-15 वर्षे रा. सदर मुळ रा. छपरा, बिहार व 8) खुशी सुरेंद्र यादव वय-13 वर्षे रा. सदर मुळ रा. ग्राम- जगतीया, पो. दावतपुर, ठाणे- दावतपुर, जि. छपरा, राज्य- बिहार यांना कंपनीत रिप्रेजेंटेटिव्ह झालेल्या स्फोटामुळे गंभीर स्वरूपाच्या दुखापती होवून ते जागीच मृत झाले आहेत. तसेच 9) मुलायम जगतबहादुर यादव वय-22 वर्षे 10) राकेशकुमार चैतराम जैस्वाल वय-50 वर्षे 11) सचिनकुमार रामबाबु यादव वय-18 वर्षे 12) रोहित वशिष्ठ सिंग वय-19 वर्षे व अंक फार्मा कंपनीचे मालक 13) नटवरलाल पटेल 14) प्राची राहुल सिंग वय- 6 वर्षे 15) ऋतिका राहुल सिंग वय-3 वर्षे यांना झालेल्या स्फोटामध्ये त्रिकोळ व गंभीर दुखापती होवून ते जखमी झाले आहेत. वैगेरे मजकूरची खबर दिल्याने मुळ कागदपत्रात सामील केली आहे. साक्षीदार 1) राकेशकुमार चैतराम जैस्वाल वय-50 वर्षे 2) नवीन कृष्णा नंदसिंग वय-24 वर्षे 3) वशिष्ठ मदन सिंग वय-50 वर्षे 4) सुरेंद्र भरत यादव वय-43 वर्षे यांचेकडे तसेच प्रत्यक्षदर्शी साक्षीदार 5) राहुल वशिष्ठ सिंग वय- 27 वर्षे यास कंपनीमध्ये झालेल्या स्फोटाबाबत विचारपुस केली असता तो दि.11/01/2020 रोजी निर्माण या कंपनीमध्ये दिवसभर काम करून सायंकाळी 18.25 वा. चे सुमारास अंक फार्मा या कंपनीतील रुमवर आला त्यावेळी कंपनीमध्ये मालक नटवरलाल बी. पटेल हे हजर होते. ते कंपनीमध्ये रिप्रेजेंटेटिव्ह चालू करून प्रडक्शन घेत होते. त्याच वेळी त्याचे मोबाईलवर फोन आल्याने तो मोबाईलवर बोलत कंपनीच्या बाहेर रस्त्यावर आला व रस्त्यावर थांबून बोलत असताना 18.50 वा. चे सुमारास अंक फार्मा या कंपनीमध्ये स्फोट झाल्याने तो घाबरून पुढे रस्त्याने धावत गेला व नंतर परत कंपनीमध्ये येवून पाहीले असता कंपनीचे पुर्ण बांधकाम हे तुटून गेलेले होते.स्फोटाच्या आवाजाने तेथे जमलेल्या लोकांच्या मदतीने दिगाऱ्याखाली अडकलेल्या लोकांना बाहेर काढले.त्यात त्याची पत्नी निशु,आई माधुरी शेजारी राहणारे राजमती यादव, गोलु, खुशी तसेच कंपनीचे कामगार मोहन,इलियास,त्रिनाथ असे स्फोटामध्ये मृत झाले असून राहुल याच्या मुली प्राची व ऋतिका तसेच कंपनीतील कामगार मुलायम, राकेशकुमार, सचिनकुमार व राहुलचा भाऊ रोहित व अंक फार्मा कंपनीचे मालक नटवरलाल पटेल असे जखमी झाल्याचे सांगत आहे. मयतांचे प्रेतांवर प्राथमिक आरोग्य केंद्र, तारापुर येथे पोस्ट उत्तरणीय तपासणी करण्यात आली आहे. अकस्मात मृत्यूकामी साक्षीदार 1) राकेशकुमार चैतराम जैस्वाल वय-50 वर्षे 2) रोहित वशिष्ठ सिंग वय-19 वर्षे 3) नवीन कृष्णा नंदसिंग वय-24 वर्षे 4) वशिष्ठ मदन सिंग वय-50 वर्षे 5) सुरेंद्र भरत यादव वय-43 वर्षे असे तंुगा हस्पीटल बोईसर येथे उपचार घेत असून कंपनी मालक नटवरलाल पटेल हे व्हर्कट हस्पीटल, मिरा रोड येथे आयसीयु मध्ये उपचार घेत आहेत.अकस्मात मृत्यूचे घटनास्थळाचा आम्ही दोन पंचासमक्ष सविस्तर पंचनामा केलेला असून अंक फार्मा या कंपनीची दोन माळ्याची आरसीसी बिल्डींग पुर्णतः तुटून त्यातील मशीनरी, इलेक्ट्रीक वायरिंग, पाईप लाईन, वल कंपाऊंड, सिव्क्युरिटी केबिन इत्यादीचे नुकसान झाले असून बाजुस असलेल्या प्लट क्र.एल 37 मधील वन अप टॅक्सटाईल,लट क्र.एम-4 मध्ये गलेक्सी सरफबर्ट लिमिटेड कंपनी, प्लट नं. एल-38 मधील बीके टेक्स, प्लट क्र.एल 59 सर्वोत्तम फब्रिक्स,प्लट क्र.एल 60 व 61 मधील मायक्रोटॅक पलीकेम प्रा.लिमी. या कंपनीच्या खिडक्यांच्या काचा, सिमेंटचे पत्रे फुटून मालाचे नुकसान हे अंक फार्मा या कंपनीमध्ये रिप्रेजेंटेटिव्ह स्फोटामुळे झाल्याचे दिसत असून तसा केलेला पंचनामा मुळ कागदपत्रात सामील केला आहे. अंक फार्मा कंपनीमध्ये झालेल्या स्फोटाची चौकशी होवून अभिप्राय मिळणेकामी आम्ही 1) औद्योगिक सुरक्षा व आरोग्य संचनालय,वसई 2)महाराष्ट्र प्रदूषण नियंत्रण महामंडळ बोईसर 3) विद्युत महावितरण म.रा.वि.वि.मंडळ, वागळे इस्टेट ठाणे 3) एमआयडीसी कार्यालय बोईसर, एमआयडीसी यांना पत्र देवून कंपनीस भेट देवून अहवाल मागीतला होता. मा. सहाय्यक संचालक,औद्योगिक सुरक्षा व आरोग्य संचनालय, वसई यांनी त्याचेकडील जा.क्र.ससंऔसु वआ/अर्धाखो/अपघात/85/वसई दि.13/01/2020 अन्वये चौकशीचा अहवाल सादर केला असून त्याचे अवलोकन करता अंक फार्मा या कारखान्यात बल्क ड्रग व त्यासाठी लागणाऱ्या कच्चा माल बनविण्याचे काम चालू होते.कंपनी व्यवस्थापनाने कारखान्याची नोंदणी हि कारखाने अधिनियम 1948 अंतर्गत करून घेतली नसून कारखाना विनापरवाना चालू होता.त्यासोबतच कारखान्याचे बांधकाम ही चालू होते. अपघाताच्या दिवशी कारखान्यामध्ये 4 ते 5 कामगारांच्या सहाय्याने उत्पादन प्रक्रिया चालू होती कंपनीच्या रिप्रेजेंटेटिव्ह दि.11/01/2020 रोजी 18.00 वा.चे सुमारास ऑर्थोव्होलोरो बॅंझाईक ऍंसिडचे प्रायोगिक तत्वावर उत्पादन चालू होते.त्यासाठी ऑर्थोव्होलोरो टलविन या रसायनामध्ये नायट्रीक ऍंसिड या रसायनाचा वापर करून उत्पादन प्रक्रिया चालू होती.सदरची प्रक्रिया हि अत्यंत उष्मादायी असल्याने ती नियंत्रणाबाहेर जावून 19.00 वा.चे सुमारास सदर रिप्रेजेंटेटिव्ह दाम प्रमाणाबाहेर वाढून अत्यंत तीव्रतेचा स्फोट झाला असावा असे मत नमुद केले आहे.सदरचा प्राप्त अहवाल मुळ कागदपत्रात सामील केला आहे.तसेच मा.उप.अभियंता सो.ा,एम.आय.डी.सी.कार्यालय बोईसर यांनी त्याचेकडील जावक क्र.आयएफएमएस /उअ/इनेज/तारापुर/ए-18702/2020 दि.14/01/2020 अन्वये अहवाल दिलेला असून त्यामध्ये मुखंड क्र. एम-2 या भूखंडावर एकुण 2 इमारती उभारलेल्या असून दि.08/12/2014 रोजी इमारत पुर्णत्वाचा दाखला प्राप्त केलेला आहे.दि. 03/12/2019 रोजीचे पाहणीत जुन्या इमारतीमध्ये अनधिकृतरित्या विना परवाना अतिरिक्त बांधकाम चालू असल्याने कंपनीस त्याच दिवशी नोटीसीद्वारे अनधिकृत बांधकाम थांबविण्याचे निर्देश दिलेबाबतचा अहवाल प्राप्त असून तो मुळ कागदपत्रात सामील केला आहे.अकस्मात मृत्यूच्या झाले एकदरीत चौकशी मध्ये बोईसर एमआयडीसी मधील प्लट नं. एम-2, अंक फार्मा या कंपनीचे मालक 1) नटवरलाल बी. पटेल यांनी कारखान्याची नोंदणी हि कारखाने अधिनियम 1948 अंतर्गत करून न घेता तसेच उप.अभियंता एम.आय.डी.सी.कार्यालय बोईसर यांची परवानगी न घेता जुन्या बांधकामावर अनधिकृत बांधकाम करून कारखाना विनापरवाना चालू केला होता. दि.11/1/2020 रोजी कंपनीमधील रिप्रेजेंटेटिव्ह चालू करून अकुशल कामगारांकडून उत्पादन घेत असताना सायंकाळी 18.50 वा. चे सुमारास रिप्रेजेंटेटिव्ह रासायनिक प्रक्रिया होवून स्फोट झाल्याने स्फोटक पदार्थाबाबत व यंत्र सामुग्रीबाबत हयगईचे व निष्काळजीपणाचे वर्तन केल्याने े कंपनीमध्ये राहणारे तसेच काम करणारे कामगार 1) इलियास बशिर अन्सारी वय- 45 वर्षे 2) निशु राहुल सिंग वय- 26 वर्षे 3) माधुरी वशिष्ठ सिंग वय-46 वर्षे 4) गोलु सुरेंद्र यादव वय-20 वर्षे 5) राजमती देवी सुरेंद्र यादव वय-40 वर्षे 6) मोहन सुर्यभान इंगळे वय- 55 वर्षे 7) त्रिनाथ डिह्री दासरी वय-40 वर्षे 8) खुशी सुरेंद्र यादव वय-13 वर्षे यांना गंभीर स्वरूपाच्या दुखापती होवून त्यांचे मरणस तसेच 9)मुलायम जगतबहादुर यादव वय-22 वर्षे 10) राकेशकुमार चैतराम जैस्वाल वय-50 वर्षे 11) सचिनकुमार रामबाबु यादव वय-18 वर्षे 12) रोहित वशिष्ठ सिंग वय-19 वर्षे व 13) कु.प्राची राहुल सिंग वय- 6 वर्षे 14) कु.ऋतिका राहुल सिंग वय-3 वर्षे 15) नटवरलाल बी. पटेल यांना किरकोळ व गंभीर स्वरूपाच्या दुखापती तसेच इतर कंपनीच्या नुकसानीस अंक फार्मा या कंपनीचे मालक नटवरलाल बी. पटेल हे कारणीभूत झाले आहेत म्हणून माझी त्यांचे विरुद्ध सरकारतर्फे फिर्याद आहे.

- 13.Action** Since the above information reveals commission of offence(s) u/s as mentioned at (केलेली कारवाई: बाब क्र.२ मध्ये नमूद केलेल्या कलमान्वये वरील अहवालावरून अपराध घडल्याचे.)
- (1) **Registered the case and took up the Investigation:** (प्रकरण नोंदविले आणि तपासाचे काम हाती घेतले): or (किंवा)
- (2) **Directed (Name of I.O.)** (तपास अधिका-याचे नाव): PRADEEP VASANT KASABE  
**Rank (पद):** I (Inspector)  
**No.(क्र.):** PCPN74731 **to take up the Investigation** (ला तपास करण्याचे अधिकार दिले) or (किंवा)
- (3) **Refused Investigation due to** (ज्या कारणामुळे तपास करण्यास नकार दिला):  
 or (ज्या कारणामुळे तपास करण्यास नकार दिला)
- (4) **Transferred to P.S.**(गुन्हा दुसरीकडे पाठविला असल्यास त्या पोलीस ठाण्याचे नाव):  
**District (जिल्हा):**  
**on point of Jurisdiction** (को क्षेत्राधिकार के कारण हस्तांतरित) .
- F.I.R. read over to the complainant / Informant, admitted to be correctly recorded and a copy given to the complainant / Informant free of cost.** (प्रथम खबर तक्रारदाराला/खबरीला वाचून दाखविली, बरोबर नोंदविली असल्याचे त्याने मान्य केले आणि तक्रारदाराला/खबरीला खबरीची प्रत मोफत दिली.)
- R.O.A.C.**(आर. ओ .ए .सी.)

- 14. Signature/Thumb Impression of the complainant / Informant.**(तक्रारदाराची/खबर देणा-याची सही/अंगठा):



- 15. Date and time of dispatch to the court** (न्यायालयात पाठवल्याची तारीख व वेळ):

  
**Signature of Officer in charge, Police Station** (ठाणे प्रभारी अधिका-याची सही)  
**Name (नाव):** Kishor babanrao Jagtap  
**Rank(पद):** I (Inspector)  
**No.(सं.):** PI

## CHAPTER 12

### DSC TEST REPORTS

The potential hazards generated during reaction of Ortho-chlorotoluene (99.5%) and Nitric Acid (58%) which was being carried out in M/s ANK Pharma Pvt Ltd, M-2, MIDC, Tarapur at the time of accident were studied. The samples of raw materials Ortho Chlorotoluene, Nitric acid and finished product Ortho chlorobenzoic Acid were obtained from the factory and sent to laboratory GVS Cibatech Pvt. Ltd., LBS Road, Bhandup West Mumbai for Differential Screening Calorimetry (DSC) Test.



**GVS Cibatech Pvt. Ltd.,**  
Firex Testing Laboratory,  
A Wing, Ground Floor, LBS Marg,  
Bhaichand Textile Compound,  
Bhandup (West),  
Mumbai – 400 078  
Tel:+91-22-25961246  
An ISO 9001:2015 Certified Company

#### DSC TEST REPORT

**REPORT No.:** CAL/D00752002

*Date:* 04/02/2020

**PAGE No. :** 1 OF 2

**SAMPLE NAME** : *OCBA Reaction Mixture*

**BATCH NO.** : -

**SAMPLE DESCRIPTION** : *Reaction Mixture*

**SAMPLE SOURCE** : *Government of Maharashtra  
Mangesh Bhuvan, 1<sup>st</sup> Floor,  
Ambhadi Road, Near Gurudwara,  
Vasai, Dist. - Palghar – 401202.  
  
Mr. Gajpure*

**DATE OF SAMPLE RECEIPT** : *30/01/2020*

**PARAMETER REQUESTED** : *Thermal stability*

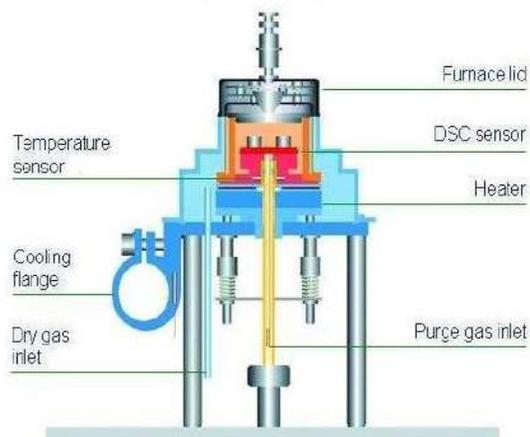
**REMARK** : *Thermogram*

**Authorised Signatory**  
**V.V.Bhujle**  
**Senior Vice President-Technical**

These results are valid only for the sample tested. The test results reported are valid under the stated conditions of measurements. Any correction invalidates this report. The test report shall not be reproduced except in full, without written approval of the laboratory. Report is submitted without legal responsibility.

1. **TEST DESCRIPTION:** Exact quantity of sample is weighed in a Gold Plated High- pressure crucible using a microbalance & the crucible is sealed under atmospheric condition. This sample is heated in the DSC cell from 30°C to 400°C at the rate of 4°C per minute. The results are based on interpretation of the different signals/ peaks of the thermogram.

2. **SCHEMATIC DIAGRAM OF DSC CELL (FURNACE):**



3. **SAMPLE PREPARATION:** As per your requirement sample was prepared in the following proportion:  
 1.5mg Ortho chloro Toluene + 2.9mg 58% Nitric acid.

4. **RESULT:**

	<i>Onset</i>	<i>Peak</i>	<i>Enthalpy</i>
<i>1<sup>st</sup> Exotherm</i>	<i>136°C</i>	<i>183°C</i>	<i>576 J/g</i>
<i>2<sup>nd</sup> Exotherm</i>	<i>215°C</i>	<i>241°C</i>	<i>398 J/g</i>

5. **INTERPRETATION & DISCUSSION:**

The thermogram shows first exotherm onset at 136°C with heat evolution of 576 J/g of sample (**Severity: High**) and second exotherm onset at 215°C with heat evolution of 398 J/g of sample (**Severity: Medium**).

If the reaction mass temperature goes beyond 145°C -150°C, the temperature control will be so difficult that it can lead to explosion as the adiabatic temperature rise calculated from above data is more than 500°C.

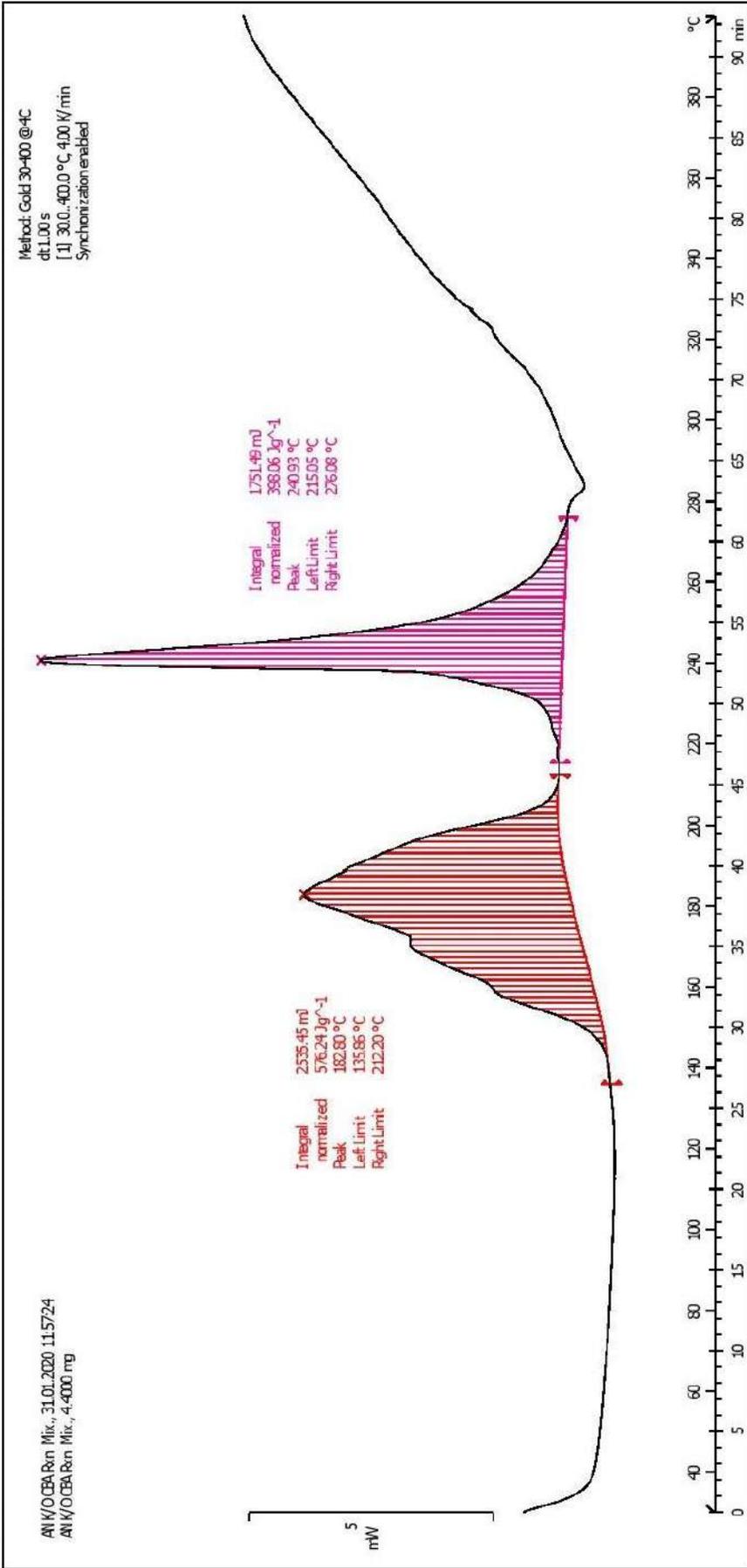
**Analyst**

These results are valid only for the sample tested. The test results reported are valid under the stated conditions of measurements. Any correction invalidates this report. The test report shall not be reproduced except in full, without written approval of the laboratory. Report is submitted without legal responsibility.

04.02.2020 14:32:04

ANK/OCBA Rxn Mix.

^exo



## CHAPTER 13

### CAUSE OF ACCIDENT

In this factory drug intermediate Ortho Chlorobenzoic Acid was being manufactured by using raw materials like Ortho Chlorotoluene, Nitric Acid etc.

While arriving to the conclusion, the Committee has considered following information:

1. Visit of the Committee members to the accident spot.
2. Statements recorded by other government officials (Deputy Director, Industrial Safety and Health, Police Department) of different injured persons/workers, staff of the factory i.e. M/S ANK Pharma Pvt.Ltd.
3. Reports of various Government Departments related to this explosion.
4. DSC Test report of reaction mass of Ortho Chlorotoluene and Nitric Acid carried out in GVS Cibatech Pvt Ltd., LBS Road, Bhandup, Mumbai.
5. Available literatures about reaction of Ortho Chlorotoluene and Nitric Acid (58%) taken from web sites.
6. MSDS of OCT and Nitric Acid
7. All other relevant documents related to the incidence.
8. Discussions and interviews with people onsite and offsite.

From the above reports, observations, opinion of members, statements of workers, injured persons, staff of ANK Pharma Pvt. Ltd., this Committee has considered the following reason for the occurrence of explosion.

The reaction of Ortho-chlorotoluene by using nitric acid was going on 11/01/2020. The batch was charged by reactor Operator Shri. Mohan Ingale. Water was first taken into SS reactor and then 600 kg of HNO<sub>3</sub> (58%) was added into it. Then Ortho-chlorotoluene (99.5%) was charged into reactor. The stirring and heating was started since 4.00 pm.

Since reaction of Ortho-Chlorotoluene (99.5%) with nitric acid (58%) is highly exothermic. This reaction might have become runaway due to one of the following reason – a) Steam heating is not stopped at predetermined temperature, b) Cold water circulation have not started , c) Failure of cooling water circulation

pump, d) Failure of stirrer, e) Absence of cold water circulation through cooling tower.

As reaction became runaway, the temperature of reaction mass was continuously increasing leading to violent boiling and decomposition of the chemicals leading to sudden rise in pressure inside the reactor. As this reactor was not provided with safety valve and rupture disc for emergency venting of large quantities of vapours inside the reactor which leads to sudden explosion of the reactor. Explosion was so massive that it has caused rupture of the reactor, breaking of columns and beams adjacent to reactor, breaking of RCC slab of part of first floor, brick walls and glasses were thrown away.

Due to this explosion, SS reactor of thickness 22 mm got busted and torned in to three pieces vertically. Half of the portion was lying on the ground floor of the factory where half of the portion was thrown away at about 25-30 feet distance from production area and split in two pieces. The RCC structure, beams, columns, walls and slab of the first and ground floor got damaged. The accessories of the reactor and steam boiler got damaged and thrown away. Compound walls and building walls of nearby factory M/s Galaxy Surfactants Ltd, Plot no M-3 got damaged due to shock wave of the explosion.

This accident could have been prevented if effective cooling arrangement, safety valve and rupture disc were provided to this reactor.

## CHAPTER 14

### STATUS OF PERMISSIONS AND LICENSES

Applicable regulations and enforcement authorities: -

#### I. MAHARASHTRA INDUSTRIAL DEVELOPMENT CORPORATION (MIDC)

##### Regulations Enforced- Development Control Regulations MIDC

#### A) MIDC

##### Standard Operating Procedure in respect of ANK Pharma Pvt Ltd.

SN	Activity	Provision as per MIDC's Development Control Rules	Provision as per Maharashtra Fire Prevention & Life Safety Measure Act -2006	Approval	Followed /Not Followed	Remarks
1	Plan Approval	Appointment of Architect Appointment of Structural Engineer Consent to Establish from MPCB SSI /MSI registration An undertaking regarding not misusing the structure other than the purpose intended		1st Plan approval vide letter No. 1490 Date 27-04-1987  BUA = 651.16 Sq m.	Followed	
2	BCC	Completion Certificate from Architect Structural Stability Certificate from Structural Engineer DCC from Plumber Consent to Operate from MPCB		BCC issued Vide letter No. 542 Date 27-04-1987  BUA = 651.16 Sq m.	Followed	
3	Provisional Fire NOC	It is necessary to obtain Provisional No-Objection Certificate before plan approval	As per the provisions under said Act, it is necessary to possess a Fire License or Provisional No-Objection Certificate to obtain a building plan approval  Under Section 3 of said Act. The	Provisional Fire NOC No. MIDC /FIRE /128/08, Date - 08/07/2008  BUA = 1909.08 Sq m.	Followed	

			applicant (developer, owner, occupier by whatever name called) shall comply with all the Fire and Life Safety measures adhering to National Building Code of India, 2016 and as amended from time to time failing which it shall be treated as a violation of the said Act. As per the provision as under: - 10 of the said Act. No person other than the License Agency shall carry out the work of providing Fire Prevention and Life Safety Measures			
4	Additio nal Plan Approv al	Appointment of Architect Appointment of Structural Engineer Consent to Establish from MPCB SSI /MSI registration An undertaking regarding not misusing the structure other than the purpose intended		2nd Plan approval vide letter No. 214 Date 04-09-2008  BUA = 2134.43 Sq m.	Followed	<b>This Approval is Cancelled</b> vide 3 <sup>rd</sup> Plan approval vide letter No. D- 07271 Date 30-10-2014
5	Revised Provisio nal Fire NOC	It is necessary to obtain Provisional No- Objection Certificate before plan approval		Revised Provisional Fire NOC No. MIDC/ FIRE /2174, Date -15/09/2012  BUA = 2098.02 Sqm (After excluding Existing built up area)	Followed	
6	Final Fire NOC	Before obtaining Final Fire NOC the owner should submit FORM A Certificate issued from License Agency against the completion of Fire Fighting Installation work done as required under the provisions of the <b>Maharashtra Fire Prevention and Life Safety Measures Act,</b>	Before obtaining Final Fire NOC the owner should submit FORM A Certificate issued from License Agency against the completion Fire Fighting Installation work done as required under the provisions of the said Act.	Final Fire NOC  No. MIDC /FIRE/2484, Date - 12/09/2013  BUA = 2098.02 Sqm	Followed	The Fire Department has not issued any fire No Objection Certificate to the building where the explosion took place. All NOC's issued by the fire department

		2006.	As per the provision of Section 3, Sub Section 3 of Maharashtra Fire Prevention and Life Safety Measures Act, 2006, it is the sole responsibility of Owner or Occupier as the case may be, that he/she shall furnish to Chief Fire Officer & Fire Advisor, MIDC or local Fire Station Officer a Certificate in a 'Form B' issued by License Agency twice a year in the Month of January And July regarding maintenance of fire prevention and life safety measures and systems in good repair and efficient working condition.			mentioned in this table were given to another Building of the same owner on the same plot i.e M-2.  As per the provision of Section 3, Sub Section 3 of Maharashtra a Fire Prevention and Life Safety Measures Act, 2006, M/s. ANK Pharma Pvt. Ltd. Plot No. M-2, Owner or Occupier has not submitted any 'Form B' issued by License Agency to Chief Fire Officer & Fire Advisor, MIDC or local Fire Station Officer.
7	Revised Plan Approval	Appointment of Architect Appointment of Structural Engineer Consent to Establish from MPCB SSI /MSI registration An undertaking regarding not misusing the structure other than the purpose intended		3rs Plan approval vide letter No. D-07271 Date 30-10-2014  BUA = 2440.25 Sq m.	Followed	<b>Compounding Charges</b> recovered amounting to Rs. 72,021.00 for an area 305.82 Sq m constructed without approval. <b>As per circular No A 32231 Date 31/01/2014</b>
8	BCC	Completion Certificate		Vide letter No. D-	Followed	

		from Architect Structural Stability Certificate from Structural Engineer DCC from Plumber Consent to Operate from MPCB		46739 Date 08-12- 2014		
9	Construc tion without approval	If any construction without approval is noticed on plot and fits within DC Rule norms & if plot holder applies for the same then, SPA shall approve & regularize the construction by imposing Compounding Charges. (As per Circular No. C- 68271 Date 10/09/2013)		Notice was issued & requested to obtain Plan Approval for unapproved structure Vide No. D-95516 Date 03/12/2019.	Followed	After notice, the plot holder has not approached for plan approval
10	Construc tion without approval	If any construction without approval is noticed on plot and fits within DC Rule norms & if plot holder applies for the same then, SPA shall approve & regularize the construction by imposing Compounding Charges. (As per Circular No. C- 68271 Date 10/09/2013)		Notice was issued & requested to obtain Plan Approval for unapproved structure Vide No. D-95516 Date 03/12/2019.	Followed	After notice, the plot holder has not approached for plan approval

### Observations of the committee-

- 1) Regulations Enforced- Development Control Regulations MIDC
- 2) The original Plot was allotted to M/s Asgar Ali Rokadiya and two others on dated 02/1/1982 same was handed over of M/s Tara Nitrate Pvt. Ltd. on 19/09/1984. The B.C.C was given to 27/04/1987. This plot was again handed over to M/s ANK Pharma Pvt. Ltd on dated 24/11/2005. The revised building plan was approved M/s ANK Pharma Pvt. Ltd on dated 30/10/2014 and B.C.C of same was given on 08/12/2014.

Plans were not got approved and BCC was not obtained in respect of second and third floor construction of the building in which explosion took place. The

stop order Notice was issued on dated 03/12/2019 as additional construction was being carrying out without permission.

- 3) After issuing BCC on 08/12/2014 MIDC officers has not inspected the premises even though factory has constructed additional three floors on existing ground plus one floor building measuring the area about 977.46 square meter. They have given stop work order when the building was on the verge on completion i.e. on 03/12/2019. Also after giving stop work order they have not taken any further action for implementation of their order or any legal action as given in their notice.
- 4) MIDC has not taken any action to stop unauthorized construction of the factory. If it would have been stopped then this major mishap would have been avoided. Also even after this major explosion MIDC has not taken any legal action for unauthorized construction of this factory.
- 5) Without obtaining the Occupancy Certificate from MIDC, the occupier of the factory was using premises as a factory.

## **B) FIRE SERVICES MIDC**

### **Observations of committee-**

- 1) Regulations Enforced- Maharashtra Fire Prevention & Life Safety Measures Act, 2006.
- 2) M/s ANK Pharma Pvt Ltd. is situated in M.I.D.C. area and comes under the Jurisdiction of Divisional Fire office, M.I.D.C, Andheri. Provisional NOC was granted by Divisional Fire officer, Operation M.I.D.C. on dated 08/07/2008 vide letter No. MIDC /Fire/128/08. Revised Provisional NOC was granted by Divisional Fire officer, Operation M.I.D.C. on dated 15/09/2012 vide letter No. MIDC/Fire/NOC/2012.
- 3) Without obtaining the NOC from Fire Department, the occupier of the factory was using premises as a factory.

**II. MAHARASHTRA POLLUTION CONTROL BOARD  
(MPCB);**

**Standard Operating Procedure in connection with ANK Pharma Pvt Ltd.**

Sr. No.	Activity	Provision	Followed/ Not Followed	Suggestion
1.	To obtain Consent to Establish U/s 25 of water (P& CP) Act 1974 and U/S 21 of Air (P& CP) Act 1981 and Authorization as per Hazardous waste Rule 2016	M/s. ANK Pharma Pvt. Ltd., Plot No. M-2, MIDC, Tarapur, Dist-Palghar. Obtained Consent to Establish on 24.03.2008. With condition to obtain Environment clearance, Installation of Water / Air Pollution Control System, Membership of Common Hazardous waste treatment and disposal facility / CETP.	Followed	All Government Department NOC's to be made available / accessible at Single window MAITRI
2.		A. Details of Raw material	Followed	To mention details of raw material in consent
3.		B. Details of Process	Followed	
4.		C. Details of Products	Followed	
5.		D. Details of water budget	Followed	
6.		E. Details of air emissions	Followed	All Solvent / Chlorine / Ammonia / H <sub>2</sub> S / Mercaptans handling units shall install LDAR system. To switch over to alternative cleaner fuel pattern from Existing Coal / LDO / FO to PNG, which is available in MIDC, Tarapur, area within 90 days. To provide online PTZ Camera, pH, Flow meter to all inlet sumps of MIDC.
7.		F. Details of Hazardous waste generation	Followed	Labeling along with

				Specification of chemicals
8.		G. SSI / MSME Certificate	Followed	...
9.		H. Capital Investment details	Followed	...
10.		I. Plot Ownership Details	Followed	To provide Unique Identification nos. on each of effluent collection Chamber of MIDC
11.		J. Provision of waste Water treatment unit to achieve disposal standards	Followed	....
12.		K. Provision of Air Pollution Control Unit	Followed	....
13.	To obtain Environment clearance	Obtained Environment clearance on 07.06.2011 and revalidation on 20.12.2018	Followed	....
14.	To obtain Consent to operate U/s 26 of water (P& CP) Act 1974 and U/S 21 of Air (P& CP) Act 1981 and Authorization u as per Hazardous waste Rule 2016	M/s. ANK Pharma Pvt. Ltd., Plot No. M-2, MIDC, Tarapur, Boisar, Dist-Palghar. Obtained Consent to operate on 02.01.2020 after installation of Plant, Machinery and Pollution Control system.	Followed	In Future before trial / Commercial production Industry shall inform to MIDC / DISH / Labour Office. Carryout operation under supervision of technical person.
15.		Verification of Compliance of consent Condition as per Randomized Visit	....	
		Provision of Display Board	Not Followed	
		Production of Consented products	Not Followed	Access to GST department for cross verification of products
		User of Raw materials as per declaration	Not Followed	
		To obtain prior consent to establish in regards to further extension	Not Followed	
		I. Other deemed feet necessary NOC's / Permission from any other government Authorities.	Not Followed	
				Provision of Continuous Ambient Air Quality Monitoring systems on periphery for Odoriferous gases.
				To Uproot Old Sewerage / effluent carrying pipeline by MIDC.

				To Complete Repairing and up- gradation of existing 25 MLD CETP before 31.03.2020.
				To circulate list of Authorized Scrap dealers dealing with contaminated industrial waste material.
				Monitoring of MIDC area with Drone camera to prevent illegal discharge.
				Provision of Non-hazardous solid waste disposal facility in MIDC.
				Provision of Buffet Zone between MIDC and Residential area. Prohibition of Residential activity in MIDC area.
				Provision of STP for domestic effluent.
				To increase Technical manpower / vehicles for effective monitoring / vigilance Considering industries nos. in Chemical cluster.
				GPS tracking system to Chemicals transporting / Vehicles.

### Observations of the committee:

#### 1) Regulations Enforced-

- a. Air (Prevention & control of pollution) Act, 1981
- b. Water (Prevention & control of pollution) Act, 1981
- c. Environment Protection Act, 1986 and rules made thereunder.

2) The Maharashtra Pollution Control Board have issued consent to M/s ANK Pharma Pvt. Ltd., as per Water Act, Air Act and Hazardous Waste (MH Rules) consent to operate under RED/SSI category Vide No. Format 1.0/AS(T)/UAN No.0000059010/CO-2001000093 dated 02/01/2020 is valid up to 30/11/2024.

Consent was valid for the manufacturing of following chemicals-

Sr. No.	Product Name	Maximum Quantity	Unit
1	Providone Iodine	2	MT/M
2	Piroxicalm	0.7	MT/M
3	Phenyl Propanol Amine-HCL	0.5	MT/M
4	Nalidixin Acid	0.3	MT/M
5	Chlorosoxazone	0.7	MT/M
6	Phenyl Ephrine HCL	0.1	MT/M

Above mentioned chemicals were not manufacturing at the time of incidence i.e. on 11.01.2020. Consent for manufacturing of Ortho Chlorobenzoic acid (OCBA) was not obtained from MPCB. Hence MPCB has passed closure order to the factory.

- 3) Officers from MPCB have visited the premises of this factory on 02/10/2019 to issue the consent to operate. On basis of this visit they have issued consent to operate on 02/01/2020 to the back side two story building constructed on the plot. During their visit they observed that, another ground plus three story building was on the verge of completion at the entrance of the factory but they did not informed to any other departments and they have not taken into consideration about the issue of license, permissions of other departments i.e. MIDC, DISH etc.

### III. DIRECTORATE OF INDUSTRIAL SAFETY & HEALTH (DISH)

#### Standard Operating Procedure in connection with ANK Pharma Pvt Ltd.

Sr. No	Provisions	Compliance by Factory	Action by Department
1	As per the provisions of Section 7A of the Factories Act, 1948, occupier of the Factory shall submit at least 15 days before he begin to occupy or use any premises as a factory, send notice of occupation in form no 1.	Not applied for occupation	As not applied, Prosecution is filed before Hon CJM, Thane under relevant provisions of Act and Rules
2	As per the provisions of Rule 5(1) of the Maharashtra Factories Rules, 1963, the occupier or manager of the factory coming within the scope of this act after its commencement shall submit to chief inspector an application in triplicate for registration of factory and for the grant of license for a period not exceeding 10 years.	Not applied for registration	
3	After receiving application for registration and grant of license DISH officer visit the factory to check whether plant and building are in conformity with approved plan and condition of plan approved are complied.	Not applicable as not applied	
4	DISH officer send his proposal with recommendations to grant or reject license to Joint Director, DISH.	Not applicable as not applied	
5	Joint Director, DISH forward proposal to Director, DISH with suitable recommendation for grant of license.	Not applicable as not applied	
6	Director, DISH grant or reject license proposal.	Not applicable as not applied	

**Observations of committee-**

## 1) Regulations Enforced-

- a. The Factories Act, 1948
- b. The Maharashtra Factories Rules, 1963

2) As per section-7 of the Factories Act, 1948, it is responsibility of occupier to apply for registration and grant of license and also to ensure safety and health of workers at work place. As this is not complied by the occupier of the factory, two criminal cases are filed in the court of Hon. Chief Judicial Magistrate, Thane.

3) DISH officers came to know about this factory, only after the accident took place. This office has not received any information about the said factory from any other departments.

**IV. LABOUR DEPARTMENT –****Standard Operating Procedure in connection with ANK Pharma Pvt Ltd.**

Sr. No	Particulars of Registration / License & Legal Provisions	Registrations/ License No. with date.	Validity of Registration Certificate/ License.	Remarks
1	Registration of establishments under Contract Labour (Regulation & Abolition) Act, 1970- <u>Applicability:</u> - Establishments Employing 50 or more workmen are employed as contract labour.	Nil	Nil	Contract Workers less than 50, therefore, not applicable.
2	Licence of contractor under Contract Labour (Regulation & Abolition ) Act, 1970- <u>Applicability:</u> - Contractor who employs 50 or more workmen.	Nil	Nil	Contract Workers less than 50, therefore, not applicable.
3	Registration of establishments under The Building & Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 <u>Applicability:</u> -Establishments which employs 10 or more building workers.	Nil	Nil	Less than 10 building workers, therefore, not applicable.

**Observations of committee:-**

- 1) Regulations Enforced-
  - a. The Contract Labour (Regulation & Abolition) Act, 1970.
  - b. Building and Other Workers Construction Act, 1986.
  - c. Contract Labour (Regulation & Abolition) Act, 1970.
  
- 2) Factory was not registered under Building and Other Construction Workers Act, 1986 even though it was under construction. As Labour department did not get the knowledge about construction of the factory from any other departments the factory is remained unregistered.

**V. DIRECTORATE OF BOILER-  
Regulations Enforced-**

- a. The Boilers Act, 1923
- b. Indian Boiler Regulations, 1950
- c. The Maharashtra Boiler Rules, 1962
- d. The Maharashtra Economizer Rules, 1965
- e. The Boiler Attendants Rules, 2011
- f. The Boilers Operation Engineers Rules, 2011

**Observations of committee:-**

Boiler installed at factory was Non IBR type hence no registration are required under this act.

**VI. PETROLEUM AND EXPLOSIVE SAFETY ORGANIZASION (PESO)**

**Regulations Enforced**

- a. The Explosive Act, 1884
- b. The Explosives Rules, 2008
- c. The Gas Cylinders Rules, 2004
- d. The Static & Mobile Pressure Vessels (Unfired) Rules, 1981
- e. The Ammonium Nitrate Rules, 2012.
- f. The Notification No. GSR 625 (E) dated 07.08.1983 regarding Acetylene
- g. The Petroleum Act, 1934
- h. The Petroleum Rules, 2002
- i. The Inflammable Substance Act, 1952 etc.

**Observations of committee-**

Factory has neither obtained any license under above mentioned acts.

**VII. MAHARASHTRA STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED-****Regulations Enforced-**

- Regulations under Maharashtra Electricity Regulatory Commission (MERC).

**Observations of committee-**

The Maharashtra State Electricity Distribution Co. Ltd has supplied electric power to M/S ANK Pharma Pvt. Ltd. under consumer No. 073010141092 with connected load 80KW on dated 12.04.2010.

## CHAPTER – 15

### RECOMMENDATIONS OF THE COMMITTEE TO AVOID SUCH TYPE OF ACCIDENTS IN FUTURE

Enquiry committee observed the following observations during enquiry-

- 1) After issuing BCC on 08/12/2014 MIDC officers has not inspected the premises even though factory has constructed additional three floors on existing ground plus one floor building measuring the area about 977.46 square meter. They have given stop work order when the building was on the verge on completion i.e. on 03/12/2019. Also after giving stop work order they have not taken any further action for implementation of their order or any legal action as given in their notice.
- 2) MIDC has not taken any action to stop unauthorized construction of the factory. If it would have been stopped then this major mishap would have been avoided. Also even after this major explosion MIDC has not taken any legal action for unauthorized construction of this factory.
- 3) Without obtaining the NOC from Fire Department and Occupancy Certificate from MIDC, the occupier of the factory was using premises as a factory.
- 4) Officers from MPCB have visited the premises of this factory on 02/10/2019 to issue the consent to operate. On basis of this visit they have issued consent to operate on 02/01/2020 to the back side two story building constructed on the plot. During their visit they observed that, another ground plus three story building was on the verge of completion at the entrance of the factory but they did not informed to any other departments and they have not taken into consideration about the issue of license, permissions of other departments i.e. MIDC, DISH etc.
- 5) DISH officers came to know about this factory, only after the accident took place. This office has not received any information about the said factory from any other departments.
- 6) Factory was not registered under Building and Other Construction Workers Act, 1986 even though it was under construction. As Labour Department did not get the knowledge about construction of the factory from any other departments the factory is remained unregistered.

Considering above observations, the cause of accident occurred in M/s ANK Pharma Pvt. Ltd. on 11.01.2020 and opinion of the committee members, the committee is recommending the following suggestions to avoid such type of accidents in future: -

**1) Maharashtra Industrial Development Corporation (MIDC):-**

- i. There shall be notified area for chemical factories handling, using, and storing hazardous and explosive chemicals. It shall be strictly followed that no factory plot shall be allotted for chemical factories in non-chemical zone.
- ii. Adequate size of plot not less than 4000 Sq. mtr. shall be allotted to factories handling, using, and storing hazardous/explosive chemicals.
- iii. All the encroachments in and around industrial area shall be removed.
- iv. It shall be ensured that marginal space inside the factory premises shall be maintained free from any obstacles, filth, debris etc.
- v. Adequate vacant land as a buffer zone preferably with tree plantation shall be maintained in between industrial area and residential area.
- vi. No residential plots shall be allotted in the MIDC area and nearby the factories handling, using, and storing hazardous/explosive chemicals.
- vii. In the industrial areas where chemical factories are situated, MIDC shall provide common fire hydrant system with adequate manpower, sufficient quantities of Foam extinguishers and same shall be maintained in good condition.
- viii. Information of allotment of plots to the chemical factories shall be given to the concerned departments like Directorate of Industrial Safety and Health, Maharashtra Pollution Control Board, Explosive Department and District Collector etc.
- ix. It shall be ensured that second exits are provided to each and every establishment for emergency use.
- x. Periodical inspections shall be carried out to ensure that no person/workers/families are residing in the factory premises.

**2) Fire Department:**

- i. Concerned fire department shall ensure that proper firefighting arrangements are provided and maintained in all establishments by enforcing provisions of

the Maharashtra Fire Preventions & Life Safety Measures Act, 2006 and Rules made there under and strict punitive action shall be taken wherever there is a violation of the said provisions.

- ii. Concerned fire departments shall ensure that toughened glasses are used instead of stain glasses for doors, windows etc. in the industries and nearby residential areas as recommended in National Building Code of India, 2016 and respective Development Control Rules.
- iii. Regular fire mock drills shall be conducted by concerned fire departments in coordination with industries, concerned local authorities and disaster management authorities.
- iv. Full-fledged fire stations shall be provided and maintained in all industrial areas.
- v. Regular Fire Audits of every establishments & factories shall be carried out by concerned fire department and strict action shall be taken for violations of provisions of Maharashtra Fire Prevention & Life Safety Measures Act, 2006.
- vi. Fire Department shall also ensure that Form-B is submitted by all industries/establishments to local Fire Authorities twice in a year i.e. in the month of January & July as per Section 3 of Maharashtra Fire Preventions & Life Safety Measures Act, 2006.
- vii. It shall be ensured that second exit are provided to each and every establishment for emergency use.
- viii. On receipt of information of the factory/establishment having explosive/inflammable substances, details of the same shall be given to Directorate of Industrial Safety and Health, Maharashtra Pollution Control Board, District Administration, Explosive Department etc.

### **3) Directorate of Industrial Safety and Health:**

- i. Presently no any committee is functioning to give approval to the location of chemical factories considering their hazards even though there is provision under section 41-A of Factories Act, 1948.

**Hence Site appraisal committee as per section 41-A of Factories Act, 1948 shall be constituted and make functional for grant of permission for the initial location of the factory involving hazardous processes and for expansion of any such factories. No government department shall give any approval or license without having approval from this committee in respect of hazardous factory.**

- ii. The provisions shall be made in the Maharashtra Factories Rules, 1963 to carry out Maximum Credible Loss Scenario (MCLS) Study, Hazards and Operability (HAZOP) Study, Risk Assessment for chemical factories so that hazards in the factory can be identified prior to grant or renewal of license.
- iii. Presently there is no any exhaustive schedule under Maharashtra Factories Rules, 1963 covering safety of all types of chemical factories similar to that in Gujrat Factories Rules, 1963.

Hence provisions similar to that under Schedule 19 of Rule 102 of Gujrat Factories Rules, 1963 for chemical work shall be made by Amendment in Rule 114 of the Maharashtra Factories Rules, 1963 as per **Annexure-5**

- iv. Presently there is provision for providing safety valve and rupture disc only to pressure vessels and no other reaction vessels normally operating at atmospheric pressure.

Hence, there shall be made provisions in the Maharashtra Factories Rules, 1963 similar to that under Rule 61 –B of Gujarat Factories Rules, 1963 regarding safety of the reaction vessels and kettles as per **Annexure- 6**

- v. Provisions shall be made in the Maharashtra Factories Rules, 1963 so as to enable the department to direct the electrical power supply companies and water supply authorities to disconnect the supply when order in writing is passed under Section 40 (2) of Factories Act, 1948 for prohibiting use of any building or part of a building or any part of the ways, machinery or plant in a factory involves imminent danger to human life or safety.
- vi. Provisions shall be made in the Maharashtra Factories (Safety Audit) Rules, 2014, to fix the responsibility on the government recognized safety auditor if it is found that the accident occurred due to negligence, hiding the information, providing incomplete information etc. in the safety audit which results into accident.
- vii. Amendment shall be made in the Schedule appended to Rule 73-H of Maharashtra Factories Rules, 1963 for insertion of all exothermic processes.
- viii. Adequate number of inspecting officers shall be appointed in each area by considering the number of factories as per International Labour Organization conventions. Also present vacant posts of inspectors shall be immediately filled.
- ix. Adequate infrastructure shall be provided by the Government to the inspecting officers for their mobility, communication so as to expedite the inspections.
- x. All electrical installations used in the process covered in fist schedule of

Factory Act, 1948, shall be of appropriate type to ensure safety against hazard prevalent in the area such as suitability against dust, dampness, corrosion, flammability and explosivity etc. and shall conform to the relevant Indian Standard Institute (ISI) specifications governing their construction and used for that area.

#### **4) Labour Department:-**

- i. Necessary provision shall be made in contract Labour Act to prohibit Contract workers in hazardous processes and chemical factories.
- ii. Periodical inspections of chemical factories shall be carried out to ensure that contract workers are not engaged in chemical factories.
- iii. On receipt of information of the chemical factory/establishment, details of the same shall be submitted to Directorate of Industrial Safety and Health, Maharashtra Pollution Control Board, Fire Brigade, District Administration, Explosive Department etc.

#### **5) District Industries Centre (DIC):-**

- i. On receipt of application of chemical factory for the registration, information of the same shall be given to the Directorate of Industrial Safety and Health, Maharashtra Industrial Development Corporation, Fire Brigade, District Administration, Explosive Department and Maharashtra Pollution Control Board etc.
- ii. All information related to industries from various government departments like MPCB, MIDC, DISH, Fire department, Explosive department, Labour department etc. shall be compiled at DICs level and shall be provided to District Disaster Management cell.

#### **6) Maharashtra Pollution Control Board (MPCB):-**

- i. On receipt of application of chemical factory for the consent to operate, information of the same shall be given to the Directorate of Industrial Safety and Health, Maharashtra Industrial Development Corporation, Fire Brigade, District Administration, Explosive Department etc.

Consent to operate shall not be given unless factory has applied for registration of Factory under Factories Act, 1948.

- ii. On receipt of information from the chemical factories regarding amendment in consent to operate, information of the same shall be given to the concerned authorities like Fire Brigade, Directorate of Industrial Safety and Health, District Administration, Explosive Department etc.
- iii. MPCB shall mention details of all raw materials in the consent granted.

### **7) Explosive Department (PESO)**

- i. On receipt of application from factory for license for use and storage of explosive/petroleum products, information of the same shall be given to the Directorate of Industrial Safety and Health, District Administration, Maharashtra Pollution Control Board etc.
- ii. On receipt of information of the factory/establishment having explosive/inflammable substances from Maharashtra Industrial Development Corporation, Maharashtra Pollution Control Board, Directorate of Industrial Safety and Health, Fire Brigade, Police, District Administration etc., Explosive Department shall carry out inspection of that factory.
- iii. Explosive Department shall identify such factory/establishment having explosive/petroleum products and take necessary action to avoid accidents.
- iv. The Explosive Department shall ensure that the vendors/ suppliers of explosive substances shall not supply the explosive/petroleum products to the factories/establishments unless applicable valid explosive license is produced.
- v. The Explosive Department authorities shall inspect the factories/establishments periodically which have obtained explosive licenses.

### **8) District Administration: -**

- i. On receipt of application from the factory for the license for storage and use of explosive/petroleum products, information of the same shall be given to the Directorate of Industrial Safety and Health, Maharashtra Industrial Development Corporation, Maharashtra Pollution Control Board, Fire Brigade, Explosive Department etc.
- ii. District administration shall prepared Disaster management plan/

Evacuation plan for Major accident hazard factories in consultation with DISH, TIMA, MIDC, Fire Department, MPCB etc.

### **9) Local Authority:**

- i. On receipt of application for chemical factory, concerned Local Authorities like Gram panchayat, Municipal Council, Municipal Corporation, Maharashtra Industrial Development Corporation, Special Economic Zone, Cooperative Industrial Estates etc. information of the same shall be given to the Directorate of Industrial Safety and Health, Maharashtra Pollution Control Board, Fire Brigade, District Administration etc.
- ii. Human habitation shall not be allowed in and around the industrial area.
- iii. Local Authorities shall not permit chemical factories/establishments in the residential areas.
- iv. Proper access roads & infrastructure for firefighting system shall be provided in industrial area.
- v. Local Authority shall ensure that the existing residents near by chemical factories are made aware by the concerned factory management regarding the hazards involved in the factory and measures to be taken.
- vi. Local Authority shall ensure that The Development Control Rules in the industrial area are strictly followed.
- vii. Fire station shall be provided in every industrial area with adequate manpower and resources.

### **10) Police Department**

- i. On receipt of information of chemical factory, concerned police station shall give information of the same to the Directorate of Industrial Safety and Health, Maharashtra Pollution Control Board, Fire Brigade, District Administration, Explosive Department, Local Authority etc. In industrial area, concerned police station shall ensure that the vehicles are parked in the allotted parking area only in order to carry out rescue and mitigation operation smoothly in emergency situation.

**11) Industrial Associations:**

- i. On receipt of information of new chemical factory, information of the same shall be given to the Directorate of Industrial Safety and Health, Maharashtra Pollution Control Board, Fire Brigade, District Administration, Explosive Department etc.
- ii. Industrial Associations shall play proactive role for educating industry members to be more responsible for on-site and off-site emergencies etc. In the existing situation industries and residents in the vicinity should have dialogue in order to develop confidence amongst general public.
- iii. Mutual Aid Response Group shall be formed among nearby industries so as to provide aid for better emergency planning, crisis management and crisis communication.
- iv. Information of the encroachments in industrial area shall be given to concerned Government Departments.

**12. General recommendations for Tarapur Industrial Area: -**

- i) To interlink the various license issued by different government bodies following sequence is suggested for factories in Red and Orange category.**
  - a) MIDC/Local authority shall not approve building plan unless “consent to establish” from MPCB, Provisional NOC from Fire department and plan approval from DISH is obtained.
  - b) MPCB shall not to issue consent to operate to the factory unless BCC is issued by MIDC/Local authority, applied for registration to DISH, final NOC from Fire department is obtained and consents/licenses/permissions obtained from all other concerned departments.
- ii) 50 MLD CETP at Tarapur MIDC shall be made immediately functional.
- iii) Effluent Discharge line of CETP at Tarapur MIDC shall be immediately extended to 7.1 Km inside the sea.
- iv) Incomplete Gutter works in MIDC Tarapur area shall be immediately completed.

- v) Government may consider to develop a system of providing information to concerned authorities like Explosives Department (Petroleum and Explosive Safety Organization), Pollution Control Board, Directorate of Industrial Safety and Health etc. about the supply of hazardous chemicals by dealers/traders to different manufacturers in respective areas.
- vi) Government may consider to develop a system of sharing information among concerned authorities like Explosives Department (Petroleum and Explosive Safety Organization), Pollution Control Board, Directorate of Industrial Safety and Health, etc. regarding new factory and changes in chemicals processes of existing factories.
- vii) In case of exothermic reactions thermo-analytical technique such as differential scanning calorimetric study shall be carried out (DSC) or adiabatic calorimetric study shall be carried to find out onset temperature above which the chemical reaction will become a runaway reaction. The reaction shall be carried out below this temperature.
- viii) As there are large number of vacant posts in different departments related to industrial safety. Hence these posts shall be filled immediately on priority basis.
- ix) There are around 3600 factories are registered under Factories Act, 1948 in Palghar district but there is no ESIC hospital, hence ESIC shall start immediately Hospital facility for the benefits of workers in the Palghar district.
- x) Access to GST department for cross verification of unconsented products manufactured by the industry if any shall be given to MPCB, MIDC, Local authority, DISH, FDA etc.
- xi) Polluting Industries in the area within and around Palghar Municipal Council shall be inspected by Safety Audit committee formed as per GR no-FAC-2020/18/Labour-4 dated 17/01/2020 on priority and notice of closure shall be issued to the Industries as per the legal provisions.

## CHAPTER-16

### PHOTOGRAPHS

Factory building where explosion took place



Damaged portion of Factory building



Removal of debris by JCB in progress



Damaged portion of reactor in which explosion took place



Front view of affected building



Hon Guardian Minister, Palghar District visited the accident spot



Back view of three story affected factory building



Hon. Industries Minister, Government of Maharashtra visited the accident spot.



Front view of affected factory building



Rescue operation by NDRF and Fire Brigade in progress



Visit of enquiry committee members along with Chairman of the Committee & Divisional Commissioner, Konkan Division.



## CHAPTER -17

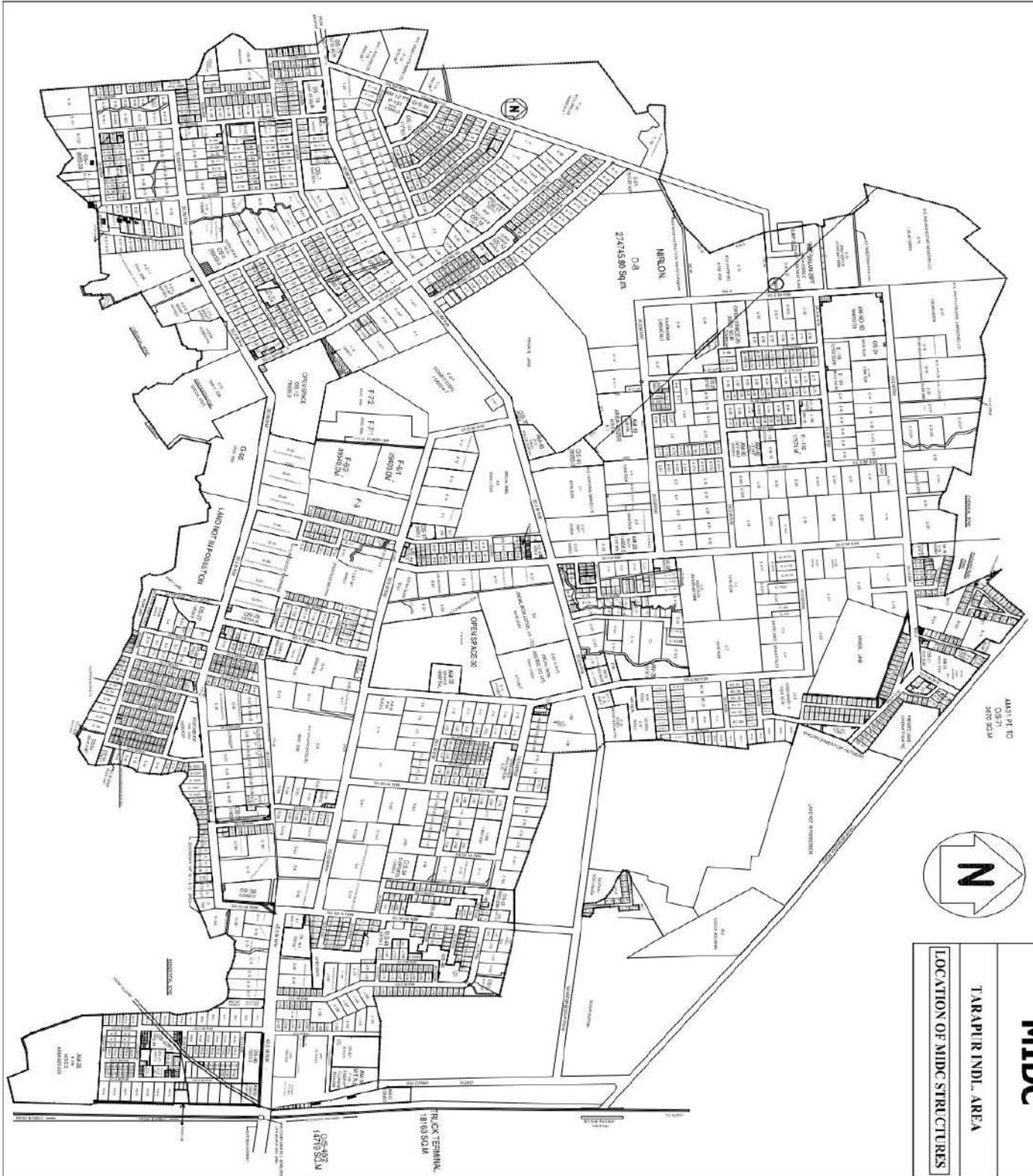
### BIBLIOGRAPHY

1. Laboratory test reports of reaction mass of Ortho Chlorotoluene and Nitric Acid (58%) by GVS CIBATECH Pvt. Ltd.
2. MSDS of Nitric Acid and Ortho Chlorotoluene
3. Bretherick's Handbook of Reactive Chemical Hazards.
4. The Factories Act, 1948.
5. The Maharashtra Factories Rules, 1963.
6. The Gujrat Factories Rules, 1963.
7. Web site- [www.orgsyn.org](http://www.orgsyn.org)

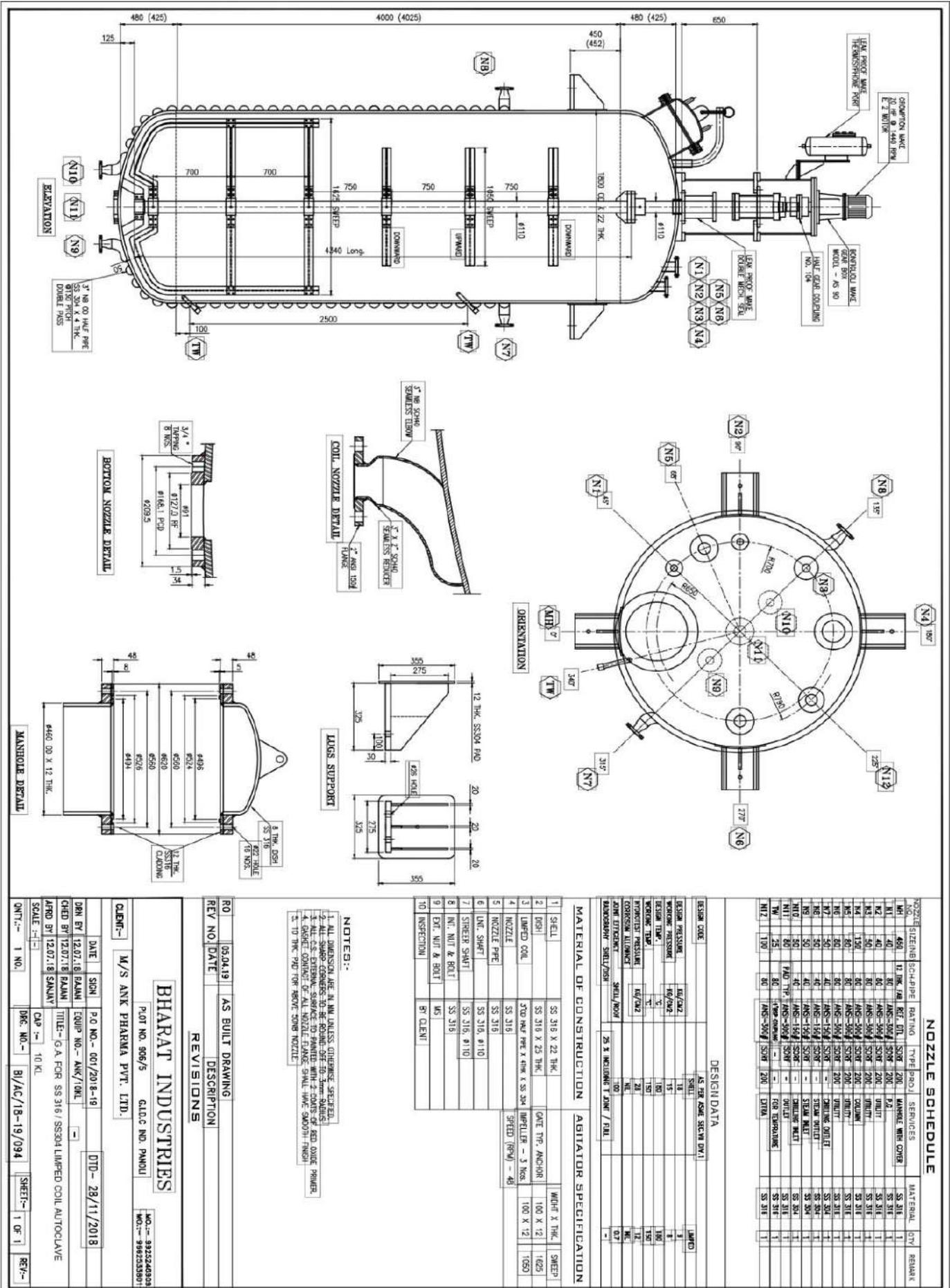
**CHAPTER -18****ANNEXURES**

<b>SR. NO</b>	<b>DETAILS OF ANNEXURE</b>
<b>1</b>	<b>MIDC Tarapur Industrial area location plan</b>
<b>2</b>	<b>a) Drawings of SS Reactor in which explosion took place b) P&amp;I Diagram of manufacturing process</b>
<b>3</b>	<b>MSDS of –</b>
	<b>a)Ortho Chlorotoluene</b>
	<b>b) Nitric Acid</b>
<b>4</b>	<b>Google map showing the location of the factory</b>
<b>5</b>	<b>Schedule XIX of Rule, 102 of the Gujrat Factories rules,1963</b>
<b>6</b>	<b>Rule 62-B of the Gujrat Factories rules ,1963</b>

Annexure-1  
MIDC Tarapur Industrial area location plan



a) Drawings of SS Reactor in which explosion took place



**NOZZLE SCHEDULE**

NOZZLE NO.	SIZE	TYPE	SERVICE	MATERIAL	REMARK
M1	480	MANHOLE	WITH COVER	SS 316	
M2	480	MANHOLE	WITH COVER	SS 316	
N1	480	ANSI-5004	SCORE	SS 316	
N2	480	ANSI-5004	SCORE	SS 316	
N3	480	ANSI-5004	SCORE	SS 316	
N4	480	ANSI-5004	SCORE	SS 316	
N5	480	ANSI-5004	SCORE	SS 316	
N6	480	ANSI-5004	SCORE	SS 316	
N7	480	ANSI-5004	SCORE	SS 316	
N8	480	ANSI-5004	SCORE	SS 316	
N9	480	ANSI-5004	SCORE	SS 316	
N10	480	ANSI-5004	SCORE	SS 316	
N11	480	ANSI-5004	SCORE	SS 316	
M1	480	ANSI-5004	SCORE	SS 316	
M2	480	ANSI-5004	SCORE	SS 316	

**DESIGN DATA**

DESIGN CODE	AS PER CODE SECTION DRY 1
DESIGN PRESSURE	KG/CM <sup>2</sup>
DESIGN TEMPERATURE	°C
WORKING TEMPERATURE	°C
PROPOSED PRESSURE	KG/CM <sup>2</sup>
CORROSION ALLOWANCE	MM
JOINT EFFICIENCY	SH/NOV
END USER	25 X INCLUDING T JMW / FILE

**MATERIAL OF CONSTRUCTION**

ITEM	DESCRIPTION	THICKNESS	WELD TYPE
1	SHELL	SS 316 X 22 THK.	WELT X THK. SWEPT
2	DSH	SS 316 X 25 THK.	100 X 12 / 1625
3	LIMITED COIL	270 HALF PIPE X 116 X SS 304	100 X 12 / 1650
4	NOZZLE	SS 316	
5	NOZZLE PIPE	SS 316	
6	INT. SHEET	SS 316, #110	
7	SHAFTER SHAFT	SS 316, #110	
8	INT. NUT & BOLT	SS 316	
9	EXT. NUT & BOLT	MS	
10	INSPECTION	BY CLIENT	

**NOTES:-**

- ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.
- ALL SHARP CORNERS TO BE ROUNDED TO RADIUS OF 5mm UNLESS OTHERWISE SPECIFIED.
- ALL SURFACES TO BE FINISHED TO RAU-100.
- ALL WELDS TO BE WELDED WITH 2 TONS OF RED COIL PRIMER.
- ALL COILS TO BE WELDED TO VESSEL WALL WITH 2 TONS OF RED COIL PRIMER.
- 10 THK. PAD FOR ABOVE COIL NOZZLE.

**REVISIONS**

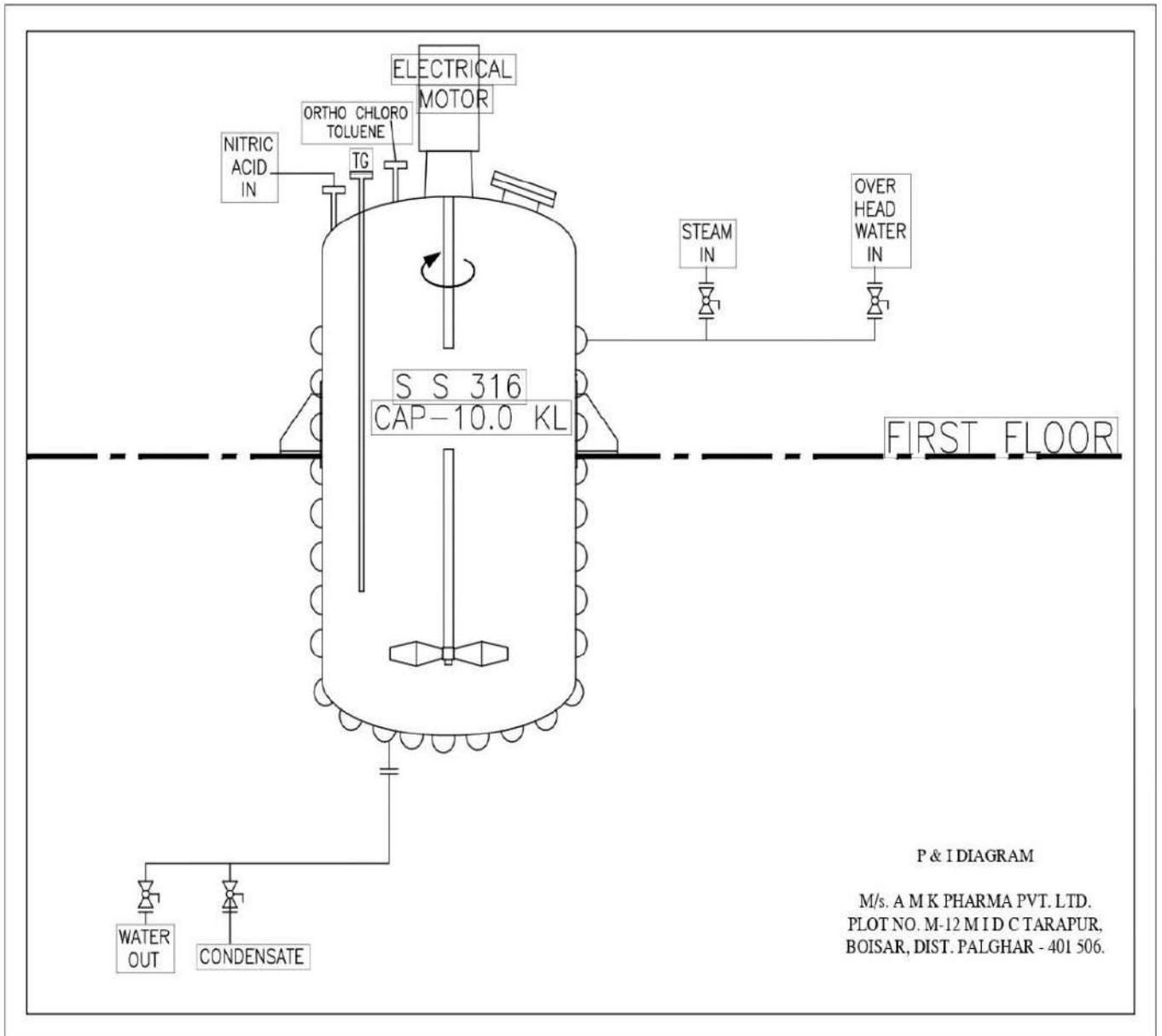
REV NO.	DATE	DESCRIPTION
01	05.04.19	AS BUILT DRAWING

**CLIENT:** M/S ANK PHARMA PVT. LTD.  
 PLOT NO. 906/S G.D.C. NO. PANOLI

**DATE:** 12.07.18  
**BY:** RAJAN  
**CHKD BY:** RAJAN  
**APPD BY:** SANJAY

**SCALE:** 10 KL  
**DRG. NO.:** B/AC/18-19/094  
**SHEET:** 1 OF 1

## b) P&amp;I Diagram of Manufacturing Process-



## Annexure-3

## Material Safety Data Sheets

## a) MSDS of Ortho-Chlorotoluene



**o-Chloro Toluene**  
CAS No 95-49-8

**MATERIAL SAFETY DATA SHEET**  
**SDS/MSDS**

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**

Product name : **o-Chloro Toluene**

CAS-No. : 95-49-8

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses : Laboratory chemicals, Industrial & for professional use only.

**1.3 Details of the supplier of the safety data sheet**

Company : Central Drug House (P) Ltd  
7/28 Vardaan House  
New Delhi-10002  
INDIA

Telephone : +91 11 49404040  
Email : [care@cdhfinechemical.com](mailto:care@cdhfinechemical.com)

**1.4 Emergency telephone number**

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Flammable liquids (Category 3), H226

Acute toxicity, Inhalation (Category 4), H332

Reproductive toxicity (Category 1B), H360

Chronic aquatic toxicity (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 Label elements****Labelling according Regulation (EC) No 1272/2008**

Pictogram



Signal word

Danger

Hazard statement(s)

H226

H332

H360

Flammable liquid and vapour.

Harmful if inhaled.

May damage fertility or the unborn child.

H411	Toxic to aquatic life with long lasting effects.
Precautionary statement(s)	
P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P273	Avoid release to the environment.
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF exposed or concerned: Get medical advice/ attention.
P308 + P313	
Supplemental Hazard Statements	none
Restricted to professional users.	

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Formula	: C7H7Cl
Molecular weight	: 126.58 g/mol
CAS-No.	: 95-49-8
EC-No.	: 202-424-3
Index-No.	: 602-040-00-X

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

Component		Classification	Concentration
<b>2-Chlorotoluene</b>			
CAS-No.	95-49-8	Flam. Liq. 3; Acute Tox. 4;	<= 100 %
EC-No.	202-424-3	Repr. 1B; Aquatic Chronic 2;	
Index-No.	602-040-00-X	H226, H332, H360, H411	

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Flush eyes with water as a precaution.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

- 4.3 **Indication of any immediate medical attention and special treatment needed**  
No data available

#### SECTION 5: Firefighting measures

- 5.1 **Extinguishing media**  
**Suitable extinguishing media**  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- 5.2 **Special hazards arising from the substance or mixture**  
Carbon oxides, Hydrogen chloride gas
- 5.3 **Advice for firefighters**  
Wear self-contained breathing apparatus for firefighting if necessary.
- 5.4 **Further information**  
Use water spray to cool unopened containers.

#### SECTION 6: Accidental release measures

- 6.1 **Personal precautions, protective equipment and emergency procedures**  
Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.  
For personal protection see section 8.
- 6.2 **Environmental precautions**  
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
- 6.3 **Methods and materials for containment and cleaning up**  
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).
- 6.4 **Reference to other sections**  
For disposal see section 13.

#### SECTION 7: Handling and storage

- 7.1 **Precautions for safe handling**  
Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Avoid exposure - obtain special instructions before use.  
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.  
For precautions see section 2.2.
- 7.2 **Conditions for safe storage, including any incompatibilities**  
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Storage class (TRGS 510): Flammable liquids
- 7.3 **Specific end use(s)**  
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

#### SECTION 8: Exposure controls/personal protection

- 8.1 **Control parameters**
- 8.2 **Exposure controls**  
**Appropriate engineering controls**  
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## Personal protective equipment

### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

### Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use (US) or type ABEK (EN 14387) respirator cartridges as a backup to enginee protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	Form: liquid, clear Colour: colourless
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point/freezing point	Melting point/range: -36 °C - lit.
f) Initial boiling point and boiling range	157 - 159 °C - lit.
g) Flash point	42.0 °C - closed cup
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	10.0 mmHg at 43.0 °C
l) Vapour density	No data available
m) Relative density	1.083 g/cm <sup>3</sup> at 25 °C
n) Water solubility	0.047 g/l at 20 °C - slightly soluble
o) Partition coefficient: n-octanol/water	log Pow: 3.42
p) Auto-ignition temperature	> 500 °C
q) Decomposition temperature	No data available

- r) Viscosity No data available  
 s) Explosive properties No data available  
 t) Oxidizing properties No data available

**9.2 Other safety information**  
 No data available

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

No data available

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

No data available

**10.4 Conditions to avoid**

Heat, flames and sparks.

**10.5 Incompatible materials**

Strong oxidizing agents

**10.6 Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

Other decomposition products - No data available

In the event of fire: see section 5

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

**Acute toxicity**

LD50 Oral - Rat - male - 3,227 mg/kg(2-Chlorotoluene)

Inhalation: No data available(2-Chlorotoluene)

LD50 Dermal - Rat - male and female - > 1,080 mg/kg(2-Chlorotoluene)

**Skin corrosion/irritation**

Skin - Rabbit(2-Chlorotoluene)

Result: No skin irritation

(OECD Test Guideline 404)

**Serious eye damage/eye irritation**

Eyes - Rabbit(2-Chlorotoluene)

Result: No eye irritation

(OECD Test Guideline 405)

**Respiratory or skin sensitisation**

Maximisation Test - Guinea pig(2-Chlorotoluene)

Result: Did not cause sensitisation on laboratory animals.

(OECD Test Guideline 406)

**Germ cell mutagenicity**

In vitro mammalian cell gene mutation test(2-Chlorotoluene)

lymphocyte

Result: negative

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

No data available(2-Chlorotoluene)

**Specific target organ toxicity - single exposure**

No data available(2-Chlorotoluene)

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available(2-Chlorotoluene)

**Additional Information**

RTECS: XS9000000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(2-Chlorotoluene)

Kidney - (2-Chlorotoluene)

**SECTION 12: Ecological information****12.1 Toxicity**

Toxicity to fish	LC50 - <i>Oryzias latipes</i> - 7.7 mg/l - 96 h(2-Chlorotoluene) (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	Immobilization EC50 - <i>Daphnia magna</i> (Water flea) - 20 mg/l - 24 h(2-Chlorotoluene)
Toxicity to algae	EC50 - <i>Selenastrum capricornutum</i> (green algae) - 7.8 mg/l - 72 h(2-Chlorotoluene) (OECD Test Guideline 201)

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available(2-Chlorotoluene)

**12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other adverse effects**

Toxic to aquatic life with long lasting effects.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber b highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

**SECTION 14: Transport information****14.1 UN number**

ADR/RID: 2238	IMDG: 2238	IATA: 2238
---------------	------------	------------

**14.2 UN proper shipping name**

ADR/RID: CHLOROTOLUENES
IMDG: CHLOROTOLUENES
IATA: Chlorotoluenes

**14.3 Transport hazard class(es)**

ADR/RID: 3	IMDG: 3	IATA: 3
------------	---------	---------

**14.4 Packaging group**

ADR/RID: III	IMDG: III	IATA: III
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**14.5 Environmental hazards**

ADR/RID: no	IMDG Marine pollutant: no	IATA: no
-------------	---------------------------	----------

**14.6 Special precautions for user**

No data available

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

**15.2 Chemical safety assessment**

For this product a chemical safety assessment was not carried out

**SECTION 16: Other information****Full text of H-Statements referred to under sections 2 and 3.**

H226	Flammable liquid and vapour.
H332	Harmful if inhaled.
H360	May damage fertility or the unborn child.
H411	Toxic to aquatic life with long lasting effects.

**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.cdhfinechemical.com](http://www.cdhfinechemical.com) for additional terms and conditions of sale.

## b) MSDS OF Nitric Acid



<b>Nitric Acid</b> <b>CAS No 7697-37-2</b>	<b>MATERIAL SAFETY DATA SHEET</b> <b>SDS/MSDS</b>
---	--

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifiers**Product name : **Nitric Acid**

CAS-NO. : 7697-37-2

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses : Laboratory chemicals, Industrial &amp; for professional use only.

**1.3 Details of the supplier of the safety data sheet**

Company : Central Drug House (P) Ltd  
 7/28 Vardaan House  
 New Delhi-10002  
 INDIA

Telephone : +91 11 49404040

Email : [care@cdhfinechemical.com](mailto:care@cdhfinechemical.com)**1.4 Emergency telephone number**

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Oxidizing liquids (Category 3), H272

Skin corrosion (Category 1A), H314

For the full text of the H-Statements mentioned in this Section, see Section 16.

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

O Oxidising R 8

C Corrosive R35

For the full text of the R-phrases mentioned in this Section, see Section 16.

**2.2 Label elements****Labelling according Regulation (EC) No 1272/2008**

Pictogram



Signal word

Danger

Hazard statement(s)

H272

May intensify fire; oxidiser.

H314

Causes severe skin burns and eye damage.

Precautionary statement(s)	
P220	Keep/Store away from clothing/ combustible materials.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
P310	
Supplemental Hazard Statements	none

### 2.3 Other hazards - none

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Molecular Weight	: 63,01 g/mol
EC-No.	: 231-714-2
Index-No.	: 007-004-00-1

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
Nitric acid	Ox. Liq. 3; Skin Corr. 1A; H272, H314	-

#### Hazardous ingredients according to Directive 1999/45/EC

Component	Classification	Concentration
Nitric acid	O, C, R 8 - R35	-

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### 4.3 Indication of any immediate medical attention and special treatment needed

no data available

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

- 5.2 Special hazards arising from the substance or mixture**  
nitrogen oxides (NO<sub>x</sub>)
- 5.3 Advice for firefighters**  
Wear self contained breathing apparatus for fire fighting if necessary.
- 5.4 Further information**  
Use water spray to cool unopened containers.

#### **SECTION 6: Accidental release measures**

- 6.1 Personal precautions, protective equipment and emergency procedures**  
Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.  
For personal protection see section 8.
- 6.2 Environmental precautions**  
Do not let product enter drains.
- 6.3 Methods and materials for containment and cleaning up**  
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).
- 6.4 Reference to other sections**  
For disposal see section 13.

#### **SECTION 7: Handling and storage**

- 7.1 Precautions for safe handling**  
Avoid inhalation of vapour or mist.  
Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition.  
For precautions see section 2.2.
- 7.2 Conditions for safe storage, including any incompatibilities**  
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- 7.3 Specific end use(s)**  
A part from the uses mentioned in section 1.2 no other specific uses are stipulated

#### **SECTION 8: Exposure controls/personal protection**

- 8.1 Control parameters**  
**Components with workplace control parameters**
- 8.2 Exposure controls**  
**Appropriate engineering controls**  
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
- Personal protective equipment**
- Eye/face protection**  
Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).
- Skin protection**  
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**

Do not let product enter drains.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

a) Appearance	Form: liquid Colour: colourless
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	< 1 at 20 °C
e) Melting point/freezing point	no data available
f) Initial boiling point and boiling range	100 °C at 1.013 hPa
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	11 hPa at 20 °C
l) Vapour density	no data available
m) Relative density	1,4 g/cm <sup>3</sup>
n) Water solubility	completely soluble
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties	no data available
t) Oxidizing properties	The substance or mixture is classified as oxidizing with the category 3.

**9.2 Other safety information**

no data available

**SECTION 10: Stability and reactivity****10.1 Reactivity**

no data available

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

no data available

**10.4 Conditions to avoid**

May discolor on exposure to air and light.

**10.5 Incompatible materials**

Alkali metals, Organic materials, Acetic anhydride, Acetonitrile, Alcohols, Acrylonitrile

**10.6 Hazardous decomposition products**

Other decomposition products - no data available

In the event of fire: see section 5

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

no data available

**Skin corrosion/irritation**

Skin - rabbit

Result: Extremely corrosive and destructive to tissue.

(Draize Test)

**Serious eye damage/eye irritation**

no data available

**Respiratory or skin sensitisation**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**

Reproductive toxicity - rat - Oral

Effects on Newborn: Biochemical and metabolic.

Developmental Toxicity - rat - Oral

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

**Specific target organ toxicity - single exposure**

no data available

**Specific target organ toxicity - repeated exposure**

no data available

**Aspiration hazard**

no data available

**Additional Information**

RTECS: Not available

Large doses may cause: conversion of hemoglobin to methemoglobin, producing cyanosis; marked fall in blood pressure, leading to collapse, coma, and possibly death., Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

Liver - Irregularities - Based on Human Evidence



**SECTION 16: Other information****Full text of H-Statements referred to under sections 2 and 3.**

H272	May intensify fire; oxidiser.
H314	Causes severe skin burns and eye damage.
Ox. Liq.	Oxidizing liquids
Skin Corr.	Skin corrosion

**Full text of R-phrases referred to under sections 2 and 3**

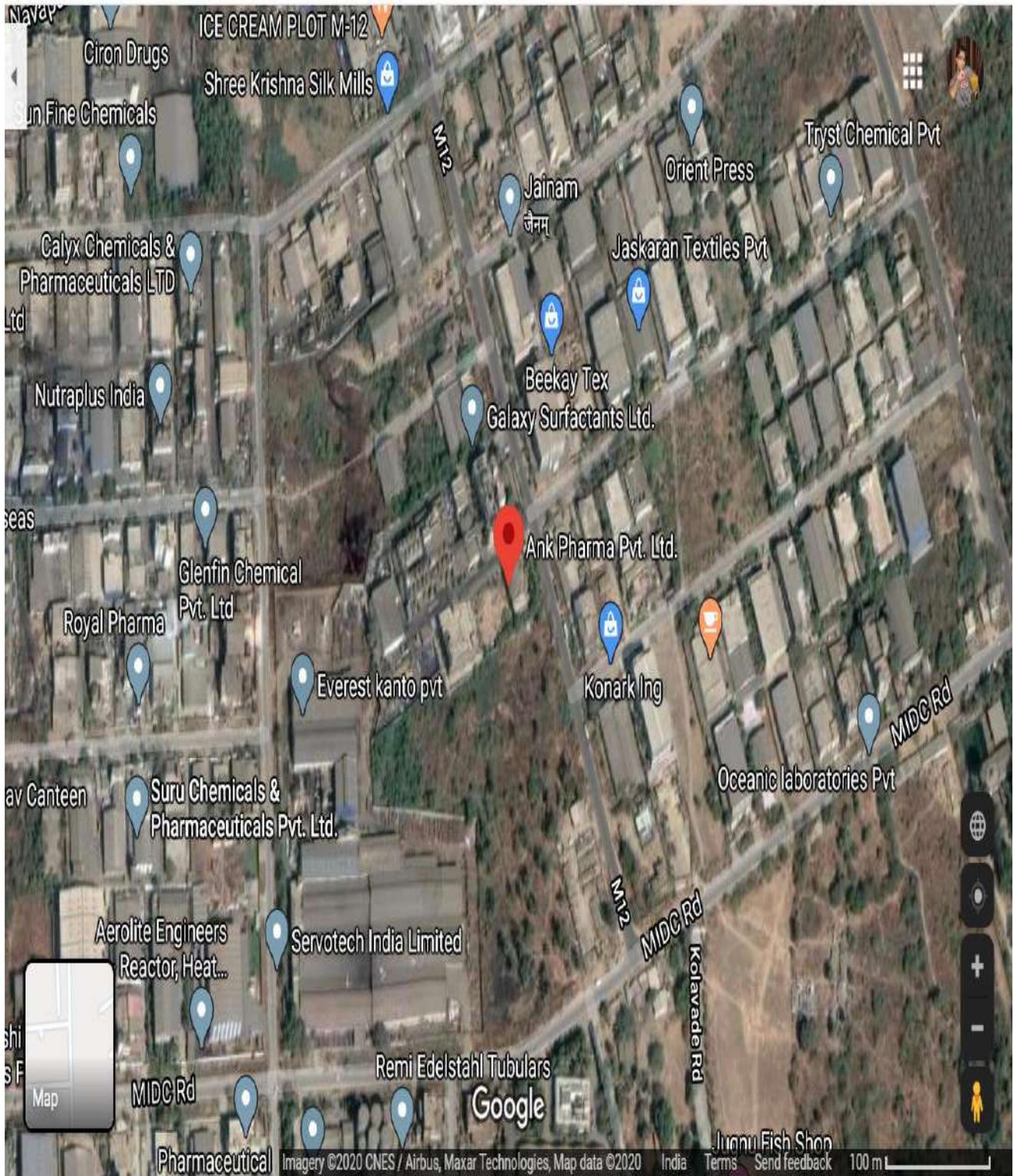
C	Corrosive
O	Oxidising
R 8	Contact with combustible material may cause fire.
R35	Causes severe burns.

**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.cdhfinechemical.com](http://www.cdhfinechemical.com) for additional terms and conditions of sale.

Annexure-4

Google Maps showing the location of the factory



## Annexure-5

## Schedule XIX of Rule 102 of the Gujrat Factories Rules, 1963.

## Chemical Works –

## Part I

1. **Application:-** This Schedule shall apply to all manufactures and processes incidental thereto carried on in chemical works.
2. **Definitions:-**  
For the purpose of this Schedule,-
  - (a) "Chemical Works" means any factory or such parts of any factory where any process or activity in relation to the industries is specified in this First Schedule of the Act;
  - (b) "Efficient exhaust draught" means localized ventilation effected by mechanical or other means for the removal of gas, vapor, fume or dust to prevent it from escaping into the air or any place in which work is carried on.
  - (c) "bleaching powder" means the bleaching powder commonly called chloride of lime;
  - (d) "chlorate" means chlorate or per chlorate;
  - (e) "caustic" means hydroxide of potassium or sodium;
  - (f) "chrome process" means the manufacture of chromate or bi chromate of potassium or sodium, or the manipulation, movement or other treatment of these substances;
  - (g) "nitro or amino process" means the manufacture or nitro of amino derivatives of phenol and of benzene or its homologues, and the making of explosives with the use of any of these substances;
  - (h) the term "permit to work" system means the compliance with the procedures laid down under Para 20 of Part II;
  - (i) "toxic substances" means all those substances which when they enter into the human body, through inhalation or ingestion or absorption through skin, in sufficient quantities, causes fatality or exert serious affection of health, or chronic harmful effects on the health of persons exposed to it due to its inherent chemical effects, in respect of substances whose Threshold Limit Value (TLV) is specified in the second Schedule of the Act, exceeding the concentration specified therein would make the substance toxic;
  - (j) "emergency" means a situation leading to a circumstance or set of circumstances in which there is danger to the life or health of persons or which could result in big fire or explosion or pollution to the work and outside environment, affecting the workers or neighborhood in a serious manner, demanding immediate action;
  - (k) "dangerous chemical reactions" means high speed reactions, runaway reactions, delayed reactions, etc. and are characterized by evolution of large quantities of heat, intense release of toxic or flammable gases or vapors, sudden pressure build-up etc.;
  - (l) "Manipulation" means mixing, blending filling, emptying, grinding, sieving,

drying, packing, sweeping handling using etc.;

- (m) "approved personal protective equipment" means items of personal protective equipment conforming to the relevant Indian Standard Institute specifications (ISI) or in the absence of it, personal protective equipment approved by the Chief Inspector of Factories;
- (n) "appropriate personal, protective equipment" means that when the protective equipment is used by the worker, he shall have no risk to his life or health or body; and
- (o) "Confined space" means any space by reason of its construction as well as in relation to the nature of the work carried therein and where hazards to the persons entering into working inside exist or are likely to develop during working.

## Part II

### General Requirements Applying To All the Works in the First Schedule of the Act

#### **1. Housekeeping:-**

- (1) Any spillage of materials shall be cleaned up before further processing.
- (2) Floors, platforms, stairways, passages and gangways shall be kept free of any obstructions.
- (3) There shall be provided easy means of access to all parts of the plant to facilitate cleaning.

#### **2. Improper use of chemicals:-**

No chemicals or solvents or empty containers containing chemicals or solvents shall be permitted to be used by workers for any purposes other than in the processes for which they are supplied.

#### **3. Prohibition on the use of food etc.:-**

No food, drink, tobacco, pan or any edible item shall be stored or heated or consumed in or near any part of the plant or equipment.

#### **4. Cautionary notices and instructions:-**

- (1) Cautionary notice in a language understood by the majority of workers shall be prominently displayed in all hazardous areas drawing the attention of all workers about the hazards to health, hazards involving fire and explosion and any other hazard such as consequences of testing of material or substances used in the process or using any contaminated container for drinking or eating, to which the workers attention shall be drawn for ensuring their safety and health.
- (2) In addition to the above cautionary notice, arrangement shall be made to instruct and educate all the workers including illiterate workers about the hazards in the process including the specific hazards to which they may be exposed to, in the normal course of their work. Such instructions and education shall also deal with the hazards involved in unauthorized and unsafe practices including, the properties of substances used in the process under normal conditions as well as abnormal conditions and the precautions to be observed against each and every hazard. Further, an undertaking from the workers shall be obtained within 1 month of their employment and for old

workers employed within one month of coming into operation of these rules, to the effect that they have read the contents of the cautionary notices and instructions, understood them and would abide by them. The training and instructions to all workers and the supervisory personnel shall include the significance of different types of symbols and colors used on the labels stuck or painted on the various types of containers and pipe-lines.

**5. Evaluation and provision of safeguards before the commencement of process:-**

- (1) Before commencing any process or any experimental work, or any new manufacture covered under first Schedule of the Act, the occupier shall take all possible steps to ascertain definitely all the hazards involved both from the actual operations and the chemical reactions. Including the dangerous chemical reactions. The properties of the raw materials used, the final products to be made and any by-products derived during manufacture, shall be carefully studied and provisions shall be made for dealing with any hazards including effects on workers may occur during manufacture.
- (2) Information in writing giving details of the process, its hazards and the steps taken or proposed to be taken from the design stage to disposal stage for ensuring the safety as in sub-para (1) above shall be sent to the Chief inspector at the earliest but in no case less than 15 days before commencing manufacture, handling or storage of any of the items covered under first Schedule of the Act whether on experimental basis, or as pilot plant or as trial production or as large scale manufacture.
- (3) The design, construction, installation, operation, maintenance and disposal of the buildings, plant and facilities shall take into consideration effective safeguards against all the safety and health hazards so evaluated.
- (4) The requirements under the sub-paras (1) to (3) shall not act in lieu of or in derogation to any other provisions contained in any other Act governing the work.

**6. Authorised entry:-**

Authorized persons only shall be permitted enter any section of the factory of plant on or where dangerous chemical reactions are taking place or where hazardous chemicals are stored.

**7. Examination of instruments and safety devices:-**

- (1) All instruments and safety devices used in the process shall be tested before taking into use and after carrying out any repair to them and, examined once in a month by a competent person, records of such tests and examinations shall be maintained in a register.
- (2) All instruments and safety devices used in the process shall be operated dally or as often as it is necessary, to ensure it's effective and efficient working at all times.

**8. Electrical installations:-**

All electrical installations used in the process covered in the first Schedule of the Act, shall be of an appropriate type to ensure safety against the hazard prevalent in that area such as suitability against dust, dampness, corrosion, flammability and explosiveness etc. and shall conform to the relevant Indian Standard Institute (ISI) specifications governing their construction and use for that area.

**9. Handling and storage of chemicals:-**

- (1) The containers for handling and storage of chemicals shall be of adequate strength

taking into consideration the hazardous nature of the contents. They shall also be provided with adequate labeling and color coding arrangements to enable identification of the containers and their contents indicating the hazards and safe handling methods and shall conform to the respective Indian Standard Institute (ISI) standards. The instructions given in the label shall be strictly adhered to. Damaged containers shall be handled only under supervision of a knowledgeable and responsible person and spillage shall be rendered innocuous in a safe manner using appropriate means.

- (2) The arrangements for the storage of chemicals including charging of chemicals in reaction vessels containers shall be such as to prevent any risk of fire or explosion or formation of toxic concentration of substances above the limits specified in second Schedule of the Act.
- (3) Without prejudice to the generality of the requirements in sub-para (2) above, the arrangements shall have suitable ventilation facilities and shall enable the maintenance of safe levels in vessels and containers. Such arrangements shall also take into consideration, the type of flooring and the capacity of flooring and the compatibility requirements of substances with other chemicals store nearby.
- (4)
  - (a) Storage of chemicals and intermediate products, which are highly unstable or reactive or explosive shall be limited to the quantities required for two months use.
  - (b) Whenever the quantities laid down in the above clause (a) are to be exceeded, the permission of the Chief Inspector shall be obtained.
  - (c) Notwithstanding anything contained in clauses (a) and (b) above, the Chief Inspector of Factories may direct any factory carrying out processes covered in the first schedule of the Act, to further limit the storage of hazardous substances to quantities less than two months in considerations of safety.
- (5) Standby arrangements equal to the biggest container shall always be available to transfer the toxic substances quickly into the standby storage facility if any defect developed in any of the container resulting in the release of toxic substances.
- (6) Any storage facility constructed using non-metallic material such as Fiber glass Reinforced Plastics (FRP) all glass vessels etc. shall have adequate a strength to withstand the stress. If any, exerted by the contents and shall be properly anchored, working platforms, access ladders, pipe lines etc. used in such storage facility shall not have any support on the structure of the storage facility and shall be independently supported.

**10. Facility for isolation:-**

The plant and equipment shall be so constructed and maintained as to enable quick isolation of plant or part of plant or equipment, with appropriate indication. One copy of the layout plant indicating the isolation facilities shall always be available with the security, the maintenance and the health and safety personnel, and these isolation facilities shall be checked for its effectiveness once in a month.

**11. Personal protective equipment:-**

- (1) All workers to the hazards in the processes covered by the Schedule shall be provided with appropriate and approved type of personal protective equipment. Such equipment shall be in a clean, sterile and hygienic condition before issue.

- (2) The occupier shall arrange to inform, educate and supervise all the workers in the use of personal protective equipment while carrying out the job.
- (3) As regards any doubt regarding the appropriateness of any personal protective equipment, the decision of the Chief Inspector shall be final.

**12. Alarm systems:-**

- (1) Suitable and effective alarm systems giving audible and visible indications, shall be installed at the control-room as well as in all strategic locations where process-control arrangements are available so as to enable corrective action to be taken before the operational parameters exceed the predetermined safe levels or lead to conditions conducive for the outbreak of fire or explosion to occur: such alarm system shall be checked daily and tested every month at least once to ensure its performance efficiency at the times.
- (2) The Chief Inspector of Factories may direct such system to be installed in case of plants or processes where toxic materials are being used and spillage or leakage of which may cause wide spread poisoning in or around the plant.

**13. Control of escape of substances into the work atmosphere:-**

- (1) Effective arrangements such as, enclosure, or by-pass, or efficient exhaust draught maintenance of negative pressure etc., shall be provided in all plants, containers, vessels, sewers, drains, flues, ducts, culverts, and hurried pipes and equipment to control the escape and spread of substances which are likely to give rise to fire or explosion or toxic hazards during normal working and in the event of accident or emergency.
- (2) In the event of the failure of the arrangements for control resulting in the escape of substances in the work atmosphere, immediate steps shall be taken to control the process in such a manner, that further escape is brought down to the safe level.
- (3) The substances that would have escaped into the work atmosphere before immediate steps as required in sub-para (2), shall be rendered in nocuous by diluting with air or water or any other Suitable agent or by suitably treating the substances.

**14. Conduct of dangerous chemical reactions:-**

Suitable provision, such as automatic and/or remote control arrangements, shall be made for controlling the effects of dangerous chemical reactions'. In the event of failure of control arrangements automatic flooding or blanketing or other effective arrangements shall come into operation.

**15. Testing examination and repair of plant and equipment:-**

- (1) All parts of plant, equipment and machinery used in the process which in the likely event of their failure may give rise to an emergent situation shall be tested by a competent person before commencing process and retested at an interval of two years or after carrying out repairs to it. The competent person shall identify the parts of the plant, equipment and machinery required to be tested as aforesaid and evolve a suitable testing procedure, in carrying out the test as mentioned above in respect of pressure vessels or reaction vessels the following precautions shall be observed, namely:-
  - (a) Before the test is carried out, each vessel shall be thoroughly cleaned and examined externally, and as far as practicable internally also for surface defects, corrosion, and foreign matter. During the process of cleaning and

removal of sludge, if any, all due precautions shall be taken against fire or explosion, if such sludge is of pyrophoric nature or contains spontaneously combustible chemicals;

- (b) as soon as the test is completed, the vessel shall be thoroughly dried internally and shall be clearly stamped with the marks and figures indicating the person by whom testing has been done and the date of test; and
  - (c) any vessel which fails to pass the test or which for any other reason is found to be unsafe for use shall be destroyed or rendered unusable under intimation to the Chief Inspector.
- (2) All parts of plants, equipment, machinery which in the likely event of failure may give rise to an emergent situation shall be examined once in a month by the competent person.
  - (3) Records of testing and examination referred to in paragraphs (1) and (2) shall be maintained as long as that part of the plant, equipment, and machinery are in use.
  - (4) All repair work including alteration, modification and addition to be carried out to the plant, equipment and machinery shall be done under the supervision of a responsible person who shall evolve a procedure to ensure safety and health of persons doing the work. When repairs or modification is done on pipeline, and joints are required to be welded, but welding of joints shall be preferred. Wherever, the responsible person shall regulate the aforesaid work through a 'permit to work system'.

**16. Staging:-**

- (1) All staging that is erected for the purpose of maintenance work or repair work or for work connected with entry into confined spaces and used in the processes included in first Schedule of the Act, shall be state, rigid and constructed out of substantial material of adequate strength, such staging shall conform to the respective Indian Standard specifications.
- (2) Staging shall not be erected over any closed or open vessel unless the vessel is so constructed and ventilated to prevent exposure of persons working on the stages.
- (3) All the staging constructed for the purpose of this Para shall have appropriate access which are safe and shall be fitted with proper hand-rails to a height of one meter and toe board.

**17. Seating arrangements:-**

The seating arrangements provided for the operating personnel working in processes covered in the first Schedule shall be located in a safe manner as to prevent the risk of exposure to toxic, flammable and explosive substances evolved in the work environment in the course of manufacture of repair or maintenance, either due to failure of plant and equipment or due to the substances which are under pressure, escaping into the atmosphere.

**18. Entry into or work in confined spaces:-**

- (1) The occupier of every factory to which the provisions of this Schedule apply, shall ensure the observance of the following precautions before permitting and person to enter or work inside the confined spaces.:-
  - (a) to identify all confined spaces and the nature of hazards that are encountered in such spaces, normally or abnormally, and arrange to develop the most

appropriate safeguards for the safety and health of persons entering into or working inside, the confined spaces;

- (b) to regulate the entry or work inside the confined spaces a 'permit to work system' which shall include the safeguards so developed as required under sub-clause (a)above;
  - (c) to render the place safe before testing the confined space for entry into or work by washing or cleaning with neutralizing agents; or purging with steam or inert gases and making adequate forced ventilation arrangements;
  - (d) to arrange to carry out such tests as are necessary for the purpose by a competent person and ensure that the confined space is safe for the persons to enter or work Such testing shall be carried out as often as is necessary during the course of work to ensure its continued safety;
  - (e) to arrange to educate and train the personnel who would be required to work in confined spaces about the hazards involved in the work. He shall also keep in readiness the appropriate and approved personal protective equipment including arrangements for rescue, resurrection and first aid, and shall arrange supervision of the work at all times by a responsible and knowledgeable person.
- (2) The manager shall maintain a log book of every entry into or work in, confined spaces and such record shall contain the details of persons assigned for the work, the location of the work and such other details that would have a bearing on the safety and health of the persons assigned for this work. The log book so maintained shall be retained as long as the concerned workers are in service and produced to the Inspector when demanded.

**19. Maintenance work etc.:-**

- (1) All the work connected with the maintenance of plants and equipment including cleaning of empty containers which have held hazardous substances used in the processes covered in this schedule, shall be carried out under 'permit to work system' employing trained personnel and under the supervision of responsible person, having knowledge of the hazards and precaution required to deal with them.
- (2) Maintenance work shall be carried out in such a manner that there is no risk to persons in the vicinity or to persons who pass by. If necessary, the place of such work shall be cordoned off or the presence of unconnected persons effectively controlled.

**20. Permit to work system:-**

The permit to work system shall inter-alia include the observance of the following precautions while carrying out any specified work to be subjected to the permit to work system:-

- (a) all work subject to the permit to work system shall be carried out under the supervision of a knowledgeable and responsible person;
- (b) all parts of plant or machinery or equipment on which permit to work system is carried out, shall remain isolated from other parts throughout the period of permit to work and the place of work including the parts of plant, machinery shall be rendered safe by cleaning, purging, washing etc.;
- (c) all work subject to the permit to work system shall have predetermined work procedure which integrate safety with the work. Such procedures shall be reviewed whenever any change occurs in material or equipment so that

continued safety is ensured;

- (d) persons who are assigned to carry out the permit to work system shall be physically fit in all respects taking into consideration the demands and nature of the work before entering into the confined space. Such person shall be adequately informed about the correct work procedure as well as the precautions to be observed while carrying out the permit to work system;
- (e) adequate rescue arrangements wherever considered necessary and adequate first aid, rescue and resuscitation arrangements shall be available in good working condition near the place of work while carrying out the permit to work system, for use in emergency;
- (f) appointed and approved protective equipment shall be used while carrying out the permit to work system;
- (g) after completion of work subject to the 'permit to work system' the person responsible shall remove all the equipment and tools and restore to the original condition so as to prevent any danger while carrying out regular process.

**21. Safety sampling personnel:-**

The occupier shall ensure the safety to persons assigned for collecting samples by instructing them on the safe procedures. Such personnel shall be provided with proper and approved personal protective equipment, if required.

**22. Ventilation:-**

Adequate ventilation arrangements shall be provided and maintained in the process area where dangerous or toxic or flammable or explosive substances could be evolved. These arrangements shall ensure that concentrations, which are either harmful or could result in explosion,' are not permitted to be built up in the work environment.

**23. Procedure for meeting emergencies:-**

- (1) The occupier of every factory carrying out the works covered in the first Schedule of the Act, shall arrange to identify all types of possible emergencies that could in the processes during the course of work or while carrying out maintenance work or repair work. The emergencies so identified shall be reviewed yearly.
- (2) The occupier shall formulate a detailed plant to meet all such identified emergencies including arrangements for summoning outside help for rescue and firefighting and arrangements for making available urgent medical facilities.
- (3) The occupier shall send the list of emergencies and the details of procedures and plans formulated to meet the emergencies, to the Chief Inspector of Factories.
- (4) The occupier shall arrange to install distinctive and recognizable warning arrangements to caution all persons inside the plant as well as the neighboring community, if necessary, to enable evacuation of persons and to enable the observance of emergency procedures by the persons who are assigned emergency duties. All concerned must be well informed about the warning arrangements and their meaning. The arrangements must be checked for its effectiveness every month.
- (5) Alternate power supply arrangements shall be made and interlocked with the normal power supply system so as to ensure constant supply of power to the facilities and equipment meant for compliance with requirements of paragraphs 10, 11, 12, 13, 14,

18, 22, and this paragraph of Part II, Part III, Part IV and Part V of this Schedule.

- (6) The occupier shall arrange to suspend the further process work in a place where emergency is established and shall forthwith evacuate all persons in that area except workers who have assigned emergency duties.
- (7) All the employees of the factory shall be trained about the action to be taken by them including evacuation procedure during emergencies.
- (8) All emergency procedures must be repeated every three months and deficiencies, if any, in the achievement of the objectives shall suitably be corrected.
- (9) The occupier shall arrange to have ten percent of the workers trained in the use of first aid, fire-fighting appliances and in the rendering of specific first aid measures taking-into consideration the special hazards of the particular process.
- (10) The occupier shall furnish immediately, on request the specific chemical identity of the hazardous substance to the treating physician when the information is needed to administer proper emergency or first-aid treatment to exposed person.

**24. Danger due to effluents:-**

- (1) Adequate precautions shall be taken to prevent the mixing of effluents from different processes and operations which may cascade dangerous or poisonous gases to be evolved.
- (2) Effluents which contain or give rise in the presence of other effluents to poisonous gases shall be provided with independent drainage systems to ensure that may be trooped and rendered safe.

**Part III**

**Fire and Explosions Risks**

1. (1) No internal combustion engine and no electric motor or other electrical equipment, and fittings and fixtures capable of generating sparks or otherwise causing combustion or any other source of ignition or any naked light shall be installed or permitted to be used in the process area where there could be fire and explosion hazards.
- (2) All hot exhaust pipes shall be installed outside a building and other hot pipes or hot surface or surface likely to become hot shall be suitably protected.
- (3) The classification of work area in terms of its hazard potential and the selection of electrical equipment or other equipment that could constitute a source of ignition shall be in accordance with respective Indian Standard.
- (4) Where a flammable atmosphere may be prevalent or could occur, the soles of footwear worn by workers shall have no metal on them, and the wheels of trucks or conveyors shall be nonconductive type.
- (5) All tools and appliances used for work in this area shall be of non-sparking type.
- (6) Smoking in process area where there are risks of fire and explosion shall be prohibited, and warning notice in the language understood by majority of workers shall be pasted in the factory prohibiting smoking into specified areas.

**2. Static electricity:-**

- (1) All machinery and plant, particularly, pipe lines and belt drives, on which static charge is likely to accumulate, shall be effectively earthed. Receptacles for flammable liquids shall have metallic connections to the earthed supply tanks to prevent static sparking where necessary, humidity shall be regulated.
- (2) Mobile tanker wagons shall be earthed during filling and discharge and precautions shall be taken to ensure that earthing is effective before such filling or discharge, takes place.

**3. Lightning protection:-**

Lightning protection arrangement shall be fitted where necessary, and shall be maintained.

**4. Process heating:-**

The method of providing heat for a process likely to result in fire and explosion shall be as safe as possible and where the use of naked flame is necessary, the plant shall be so constructed as to prevent any escaping flammable gas, vapor, or dust coming into contact with the flame, or exhaust gases, or other sources likely to cause ignition. Wherever possible, the heating arrangement shall be automatically controlled at a pre-determined temperature below the danger temperature.

**5. Leakage of flammable liquids:-**

- (1) Provision shall be made to confine by means of bund walls, dykes, sumps etc. possible leakages from storage vessels containing flammable liquids.
- (2) Waste material in contact with flammable substances shall be disposed of suitably under the supervision of knowledgeable and responsible person.
- (3) Adequate and suitable fire-fighting appliances shall be installed in the vicinity of such vessels.

**6. Safety valves:-**

Every still and every closed vessel in which gas is evolved or into which gas is passed, and in which the pressure is liable to rise above the atmospheric pressure, shall have attached to it a pressure gauge, and a proper safety valve or other equally efficient means to relieve the pressure. These appliances shall be maintained in good condition.

**7. Installation of pipe line etc.:-**

All pipelines carrying flammable or explosive substances shall be protected from mechanical damage and shall be examined by a responsible person once in a week to detect any deterioration or defects, for accumulation of flammable or explosive substances, and record kept of any defects found and repairs made.

**8. Fire-fighting systems:-**

- (1) Every factory employing 500 or more persons and carrying out processes listed in the First Schedule of the Act, shall provide:-
  - (a) trained and responsible fire-fighting squad so as to effectively handle the fire-

fighting and life-saving equipment in the event of fire or other emergency. Number of persons in this squad shall necessarily depend upon the size of risk involved, but in no case shall be less than 8 such trained persons to be available at any time. The squad shall consists of watch and ward personnel, fire pump man and departmental supervisors and operators trained in the operation of fire and emergency services;

- (b) squad leaders shall preferably be trained in a recognized Government institution and their usefulness enhanced by providing residence on the premises;
  - (c) Squad personnel shall be provided with clothing and equipment including helmets, boots and belts.
- (2) A muster roll showing the duties allocated to each member of the squad shall be prepared and copies supplied to each such leader as well as displayed in prominent places so as to be easily available for reference in case of emergency.
  - (3) The pump man shall be thoroughly conversant with the location of all appliances. He shall be responsible for maintaining all fire-fighting equipment in proper working order. Any defect coming to his notice shall be immediately be brought to the notice of squad leader.
  - (4) As far as is practicable, the fire pump room and the main gate(s) of the factory be connected to all manufacturing or storing areas through telephone interlinked and placed in a convenient location near such areas.

#### **Part IV**

##### **Risks of Toxic Substances**

#### **1. Leakage:-**

- (1) All plants shall be so designed and constructed as to prevent the escape of toxic substance. Where necessary, separate building, rooms, or protective structures shall be used for the dangerous stages of the process and the building shall be so designed as to localize and escape of toxic substances.
- (2) Catch bund walls, dykes, or other suitable safeguards shall be provided to restrict the serious effects of such leakage. Catch pits shall be places below joints in pipelines where there is danger involved to maintenance and other workers from such leakage.

#### **2. Drainage:-**

Adequate drainage shall be provided and shall lead to collection tanks specifically provided for this purpose wherein deleterious material shall be neutralized treated or otherwise rendered safe before it is discharged into public drains or sewers.

#### **3. Covering of vessels:-**

- (1) Every fixed or structure containing any toxic substance and not so covered as to eliminate all reasonable risk of accidental contact of any portion of the body of a worker, shall be so constructed as to avoid physical contact.
- (2) Such vessel shall, unless its edge is at least 90 centimeters above such adjoining ground or platform.
- (3) Where such vessels adjoin and the space between them clear of any surrounding brick

or other work is either less than 45 centimeters in width or in 45 or more centimeters in width, but is not securely fenced on both to a height of at least 90 centimeters, secure barriers shall be so placed as to prevent passage between them:

Provided that sub-paragraph (2) of this paragraph shall not apply to saturators used in the manufacture of sulphate of ammonia; and that part of the sides of brine evaporating pans which require raking, drawing or filling.

**4. Continuous exhaust arrangement:-**

- (1) Any process evolving toxic vapor, gas gume and substance shall have efficient continuous exhaust draught. Such arrangement shall be interlocked in the process control wherever possible.
- (2) in the event of failure of continuous exhaust arrangement means shall be provided to automatically stop the process.

**5. Workbench:-**

All the work benches used in processes involving the manipulation of toxic substances shall be graded properly and shall be made of smooth impervious surface which shall be washed daily after the completion of work.

**6. Waste disposal:-**

- (1) There shall be provided a suitable receptacle made of non-absorbable material with a tightly fitting cover for depositing waste material soiled with toxic substance and the contents of such receptacle shall be destroyed by burning or using other suitable method under the supervision of a responsible person.
- (2) During the course of manufacture, whenever any batch or intermediate products having toxicity is rejected or considerations of quality, sufficient precautions shall be taken to render them innocuous or otherwise treat them or inactive them, before disposal.
- (3) The empty containers of toxic substances shall be cleaned thoroughly before disposal under the supervision of a responsible person.

**Part V Special Provisions**

**1. Special precautions for nitro or amino processes:-**

- (1) Unless the crystallized nitro or amino substances or any of its liquor is broken or agitated in a completely enclosed process so as not to give rise to dust or fume, such process shall be carried on under an efficient exhaust draught or by adopting any other suitable means in such a manner as to prevent the escape of dust or fume in the working atmosphere.
- (2) No part of the plant or equipment or implements which was in contact with nitro or amino compounds shall be repaired, or handled unless they have been emptied and thoroughly cleaned and decontaminated.
- (3) Filling of containers with nitro or amino compounds shall be done only by using a suitable scope to avoid physical contact and the drying of the containers in the stove shall be done in such a manner that the hot and contaminated air from the stove is not drawn into the workroom.
- (4) Processes involving the steaming into or around any vessel containing nitro or amino compounds or is raw materials shall be carried out in such a manner that the steam or

vapor is effectively prevented to be blown back into the working atmosphere.

- (5) Suitable antidotes such as methylene blue injections shall always be available at designed places of work, for use during emergency involving the poisoning with nitro or amino compounds.

**2. Special precautions for "chrome processes":-**

- (1) Grinding and sieving of raw materials in chrome processes shall be carried on in such a manner and under such condition as to secure effective separation from any other processes and under an efficient exhaust draught.
- (2) There shall be washing facilities located very near to places where wet chrome processes such as leaching acidification, sulphate setting, evaporation, crystallization, centrifugation or packing are carried out, to enable quick washing of affected parts of body with running water.
- (3) Weekly inspection of hand and feet of all persons employed in chrome process shall be done by a qualified nurse and record of such inspections shall be maintained in a form approved by the Chief Inspector of Factories.
- (4) There shall be always available at designated places of work suitable ointment such as glycerin, Vaseline etc. and water proof plaster in a separated box readily accessible to the workers so as to protect against perforation of nasal septum.

**3. Special precautions for processes carried out in all glass vessels:-**

- (1) Processes and chemical reactions such as manufacture of Phenyl chloride, benzyl chloride etc. which are required to be carried out in all glass vessels shall have suitable means like substantial wire mesh covering to protect persons working nearby in the event of breakage of glass vessel.
- (2) Any spillage or emission of vapor from the glass vessel due to breakage, shall be immediately inactivated or rendered innocuous by suitable means such as dilution with water or suitable solvents so as to avoid the risks of fire or explosion or health hazards.

**4. Special precautions or processes involving chlorate manufacture:-**

- (1) Crystallization, grinding or packing of chlorate shall not be done in a place used for any other purpose and such places shall have hard, smooth and impervious surface made of non-combustible material. The place shall be thoroughly cleaned daily.
- (2) The personal protective equipment like overall, etc. provided for the chlorated workers shall not be taken from the place of work and they shall be thoroughly cleaned daily.
- (3) Adequate quantity of water shall be available near the place of process for use during the emergency.
- (4) Wooden vessels shall not be used for the crystallization of chlorate or to contain crystallized ground chlorate.

**5. Special precautions in the use of plant and equipment made from reinforced plastics:-**

- (1) All plant and equipment shall conform to appropriate Indian or any other National Standard.
- (2) Care shall be taken during storage, transport, handling and installation of plant and equipment to avoid accidental damage.
- (3) All plant and equipment shall be installed in such a way as to ensure that loads are distributed as intended in design or as per the recommendations of the manufacturers.
- (4) All pipe-work shall be supported so that total loads local to the branches on the vessel or tank do not exceed their design values.
- (5) After erection, all plant and equipment shall be subjected to a pressure test followed by a thorough examination by a competent person. The test and examination shall be as per relevant standard. A certificate of test and examination by competent person shall be obtained and kept available at site.
- (6) All plant and equipment shall be subjected to periodical tests and examination and record maintained as per paragraph 15 in Part II of this Schedule.
- (7) Plant and equipment during their use shall not be subjected to over filling or over loading beyond rated capacity.
- (8) Restrict or prohibit the employment of women and young persons under the age of 18, in any of the processes covered in First Schedule of the Act on, consideration of health and safety of women and young persons.
- (9) Such persons who are restricted or prohibited from working in the process due to the order issued in pursuance of sub-para (1) above shall be provided with alternate work which is not detrimental to their health or safety.

**Appendix**

**(Concerning Special Bathing Accommodation in Pursuance of Para 4 of Part VI)**

1. Nitro or amino processes.
2. All chrome processes.
3. Processes of distilling gas or coal tar or processes of chemical manufacture in which tar is used.
4. Processes involving manufacture, manipulation, handling or recovery of cyanogen compound, cyanide compound, cyanate compounds.
5. Processes involving manufacture of bleaching powder or production of chlorine gas in chloro- alkali plants.
6. Manufacture, manipulation or recovery of nickel and its compounds.
7. All processes involving the manufacture, manipulation or recovery of aliphatic or aromatic compounds or their derivatives or substituted derivatives.

## Annexure- 6

**Rule 61-B of the Gujrat Factories Rules, 1963****Reaction vessels and kettles:-**

- (1) This rule applies to reaction vessels and kettles (hereinafter referred to as "reaction vessels") which normally work at the pressure not above the atmospheric pressure but in which there is likelihood of pressure being created above the atmospheric pressure due to reaction getting out of control or any other circumstances.
- (2) In the event of the vessel being heated by electrical means, a suitable control device shall be provided to prevent the temperature exceeding the safe limit.
- (3) Where steam is used for heating purposes in reaction vessel, it shall be supplied through a suitable automatic device to prevent the maximum permissible steam pressure being exceeded unless the pressure of the steam in the supply line itself cannot exceed the said maximum permissible pressure.
- (4) A suitable safety valve or require disc of adequate size and capacity shall be provided to effectively prevent the pressure being built up in the reaction vessel beyond the safe limit. Effective arrangement shall be made to ensure that the released gases, fumes, vapours, liquids or dusts, as the case may be, are led away and disposed of through suitable pipes without causing any hazard flammable gases or vapours are likely to be vented out from the vessel the discharge end shall be provided with a flame arrester.
- (5) Every reaction vessel shall be provided with a pressure gauge having an appropriate range.  
(6) In addition to the device as mentioned in the above clauses, means shall be provided for automatically stopping the feed in to the vessel as soon as process condition deviates from the normal limit to an extent which can be considered as dangerous.
- (7) Where necessary, an effective system for cooling, flooring or blanketing shall be provided for the purpose of controlling the reaction and process conditions within the safe limits of temperature and pressures.
- (8) All automatic auditory and visual warning devices shall be provided for clear warning whenever process conditions exceed the present limits. This device wherever possible shall be integrated without automatic process correction system.
- (9) A notice pointing, out the possible circumstances in which pressure above atmospheric pressure may be built up in the reaction vessel, the dangers involved and the precautions to be taken by the operators shall be displayed at the conspicuous place near the vessel

**BEFORE NATIONAL GREEN TRIBUNAL****PRINCIPAL BENCH, NEW DELHI****(Through Video Conferencing)****ORIGINAL APPLICATION NO.19 OF 2020**Sayyed Mohmamed  
Sabir Usman

}

**APPLICANT**

Versus

Member Secretary,  
Central Pollution Control Board  
& Ors

}

**RESPONDENT****Action Taken Report in Compliance of  
the order dated 2/7/2020 passed by the Hon'ble NGT**

This Hon'ble Tribunal vide order dated 02/07/2020 constituted a Committee consisting of Collector, Palghar & Maharashtra Pollution Control Board and directed to submit factual and action taken report in the above matter.

In compliance of this Hon'ble Tribunal Order dtd.2/07/2020, the Dist Collector has conveyed the meeting of Regional Officer, MPCB- Thane, DISH, Executive Engineer, MIDC, Labour Commissioner, Palghar and Police Inspector, Boisar Police Station on 29/10/2020 During Meeting following documents were taken on record.

- 1) Maharashtra Pollution Control Board has granted Consent to Establish dated 24/3/2008 to M/s ANK Pharma Ltd., Plot no. M-2, at MIDC Tarapur. Further the MPCB has granted Consent to Operate dated 02/01/2020 to the said industry, subject to certain

terms & conditions, which is valid upto 30/11/2024. Copies of the Consent to Establish dated 24/03/2008 and Consent to Operate dated 02/01/2020 are enclosed herewith and marked as **Annexure – "A" & "B" respectively.**

- (i) M/s ANK Pharma Ltd has obtained an Environment Clearance from the Environment Department, Government of Maharashtra vide letter No. SEAC 2010/CR 654/TC.2 dtd. 07/06/2011 for new bulk drug unit (of total capacity 4.3 MT/Per month) and same was re-validated vide letter dtd. 20/12/2018 for a period upto 05/06/2023.
- (ii) Dy. Engineer, MIDC, Drainage Sub Division, Tarapur vide letter dated 13/01/2020 and 06/11/2020 specifically informed that there was no specific permission obtained for storage of chemicals in Administrative Building and both the premises should not be used for any hazardous manufacturing activities without restoration and a certificate of stability obtained from the Competent-Authority; (DISH).
- (iii) The Dy. Labour Commissioner-Palghar vide letter dated 22/01/2020 communicated names of 08 no. of workers of the blast, expired in the accident and action taken by their department about compensation to the workers.
- (iv) The Police Department-Boisar made available a copy of Panchanama about the blast incidence causing death of eight workers and damage to nearby property.
- (v) After incidence of blast in M/s ANK Pharma Ltd. a Committee was constituted by the State Government under the Chairmanship of Hon'ble Divisional Commissioner,

Konkan Division. The said Committee had already investigated the incidence of explosion occurred on 11/01/2020 and submitted its report vide letter dated 17/03/2020 to the State Government. In the Committee's report, it has been specifically reported that the factory was not registered under Building & Other Construction Workers' Act, 1986 even though it was under construction without obtaining the NOC from Fire Department & Occupancy Certificate from MIDC. It has been reported that the Occupier was using premises as a factory. MIDC has not taken any further step to stop unauthorized construction of administrative building.

- (vi) The Sub Regional Officer, MPCB, Tarapur has also caused visit and inspection on 12/01/2020 after accident and observed that the building near entry gate was collapsed due to blast in reactor, which was earlier used for administrative building. On the basis of non-compliances observed during the visit, directions of closure was issued to M/s ANK Pharma Ltd vide letter dated 13/01/2020. A copy of the directions of closure dated 13/01/2020 is enclosed and marked as an Annexure "C".
- (vii) The Committee constituted by the Hon'ble NGT caused visit to the site in question on 29/10/2020 and after verification of the record, it has been observed that eight workers have been expired for which compensation under Workmen Compensation Act has been paid. MPCB had issued Directions of Closure on 13/01/2020. The Committee also

suggested that whatever recommendations are made by Divisional Commissioner, Konkan Region in their report submitted to the State Government needs to be implemented. The Committee further recommends that without obtaining necessary statutory compliances, no permission to restart industrial unit shall be granted. At present, the above industry is closed.

Dated this 9<sup>th</sup> on the day of November ,2020.



(R. A. Rajput)  
Regional Officer, MPCB-Thane



(Dr. Manik Gursal)  
Collector-Palghar



महाराष्ट्र शासन

सहसंचालक, औद्योगिक सुरक्षा व आरोग्य संचालनालय,  
मंगेश भुवन, १ ला मजला, अंबाडी रोड, गुरुव्दाराजवळ, वसई (प), जि. पालघर ४०१२०८

फोन व फॅक्स नं : ०२५०-२३३२६१८ Email ID : jddish.vas-mh@gov.in

क्र.ससंऔसुवआ/कादानो/निआग/२०२०/१६८-९६/वसई

नोंदणी पोच देय

दिनांक- 31 JAN 2020

To,

1) Shri. Natvarlal Patel  
2) Shri. Ankit Patel  
Occupier of,  
M/s. ANK Pharma Pvt. Ltd.,  
Plot No. M-2, M.I.D.C.,  
Tarapur, Boisar,  
Dist-Palghar

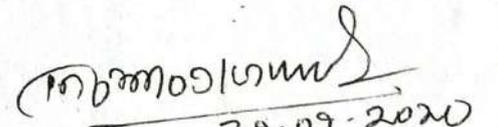
विषय :- कारणे दाखवा नोटीस.

संदर्भ :- दिनांक ११/०१/२०२० रोजीचा भेटीचा अहवाल.

या कार्यालयातील खाली सही करणा-या अधिका-याने वर नमुद केलेला भेटीचा अहवाल  
क्र. ससंऔसुवआ/अपघात/निआग/२०२०/१६८/वसई, दिनांक २४/०१/२०२० अन्वये आपणांस  
माहिती देण्यात आलेला आहे. त्या अहवालात आपण

- The provisions of Rule 4(4) of the Maharashtra Factories Rules, 1963.
- The provisions of Rule 4(1)(a),(b),(c) of the Maharashtra Factories Rules, 1963.
- The provisions of the Section 7-A(2)(a) of the Factories Act, 1948.
- The provisions of Rule 65(6)(iii)(a) & (b) of the Maharashtra Factories Rules, 1963.
- The provisions of Rule 73-R(1) of the Maharashtra Factories Rules, 1963.

चा भंग केल्याचे नमुद केले आहे. तरी सदर भंगाकरीता आपणावर कायदेशिर कारवाई का करू नये  
याचा खुलासा ही कारणे दाखवा नोटीस मिळाल्यापासून सात दिवसांच्या आत सादर करावा.

  
31.01.2020  
(नि. आ. गजपुरे)

उप संचालक

औद्योगिक सुरक्षा व आरोग्य,  
वसई, जि. पालघर.

OLC  
ANV  
31/1/2020

# MAHARASHTRA POLLUTION CONTROL BOARD

Tel : 25802272		Regional Office, Thane
Fax : 25805398		5 <sup>th</sup> Floor, Office Complex Bldg.,
Website: <a href="http://mpcb.gov.in">http://mpcb.gov.in</a>		Near Mulund Check Naka,
E-mail Id: rothane@mpcb.gov.in		Wagale Estate, Thane-400 604.

No. MPCB/ROT/CD/ 12

Date: 13/01/2020

To,  
M/s. ANK Pharma Pvt. Ltd.,  
Plot No. M-2, MIDC Tarapur,  
Tal. & Dist. Palghar.

**Sub:-** Closure Directions under section 33A of the Water (P & CP) Act, 1974 & under section 31A of the Air (P. & C.P.) Act, 1981 and Hazardous & Other Wastes (M & T M) Rules, 2016.

**Ref :-** 1) Consent granted by Board.  
2) Conditional Restart Direction dtd. 17/03/2017 & 08/10/2018.  
3) Explosion (Blast) occurred on 11/01/2020.  
4) Visit of Board Officials dtd. 12/01/2020.  
5) Action proposal submitted by Sub-Regional Officer, Tarapur-I vide Legal Unique No. MPCB- LEGAL\_ACTIONS- 130120012, dtd. 13/01/2020.

**WHEREAS**, you are operating your industry in Water & Air pollution prevention area declared under Water (P & CP) Act, 1974 Air (P & CP) Act, 1981. AND WHEREAS, Board has granted consent to your industry subject to certain terms & conditions therein. AND WHEREAS, it is obligatory on your part to comply those conditions and provide necessary water & air pollution control devices and operate them continuously and efficiently so as to meet the standards prescribed by the Board at all times.

**AND WHERAS**, Sub- Regional Office, MPCB, Tarapur-I received information about accident in M/s. Ank Pharma Pvt. Ltd., Plot No. M-2 on 11/01/2020, accordingly the officials of MPC Board, Tarapur- I visited the site and following observations are noted:

1. During the past visit of Board official dt: 10/10/2019, you have informed that the Blast occurred building near main gate will be used for administrative purpose and assured that no any plant and machinery will be installed in this building.
2. In this newly constructed building (Near main gate/entrance) you have illegally installed reactors, thermopacks, centrifuge etc. without obtaining permission from respective competent authorities such as DISH.
3. It was also reported that you were manufacturing products of your sister concern i.e M/s. Alexo Chemicals located at Plot No: N-174, MIDC Tarapur in this existing Plot No: M-2 premises.
4. It was reported that Orthocholoro Toluene, 2, 3-xylidine, Tras 4-aminocyclohexanol which is imported from China found stored in the premises.
5. Also Hazardous Chemicals like Dimethyl formaide, 2, 3-xylidine found stored in the premises.
6. Due to blast the air pollution control equipments and Effluent Treatment Plant (ETP) found in damaged condition.

: 2:

7. Due to negligence towards safety aspects massive blast occurred in your industry on dt: 11/01/2020 causing damage to environment and affected 8-fatals.
8. You have not provided display Board at main gate/ entrance as per consent condition.

**AND WHEREAS**, after examining all the reports and records available with this office, I have come to the conclusion that you are knowingly and willfully violating the consent conditions under the provisions of Water (P & CP) Act, 1974 and Air (P & CP) Act, 1981.

**AND NOW THEREFORE**, in the exercise of the powers conferred u/s 33A of Water (Prevention & Control of Pollution) Act 1974, and 31A of Air (Prevention & Control of Pollution) Act, 1981. I, Regional Officer, MPCB, Thane hereby directed to close down your manufacturing activities, within 72 hours taking all precautionary measures for safe closure, It shall be noted that competent authorities are hereby directed to disconnect your electricity and water supply.

In case of your failure to comply these directions, further suitable action which may be deemed fit, as per the provisions of the Environmental Act's will be initiated against your unit, which may please be noted.

  
13/01/2020

(D. B. Patil)

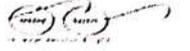
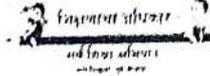
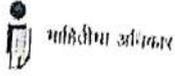
Regional Officer, Thane

**Copy submitted to:**

1. Member Secretary, M. P. C. Board, Mumbai.
2. Principal Scientific Officer, M. P. C. Board, Sion, Mumbai.

**Copy to:**

1. The Executive Engineer, MSEDCL, Palghar  
- He is directed to disconnect electric supply of above mentioned industry after completion of 72 hours from receipt of these direction immediately and report compliance accordingly.
2. The Executive Engineer, Water Supply, MIDC, Wagle Estate, Thane / Deputy Engineer (Water Supply), MIDC Tarapur – They are directed to disconnect water supply of above mentioned industry after completion of 72 hours from receipt of these direction immediately and report compliance accordingly.
3. Sub- Regional Officer, Tarapur-I, MPC Board, Tarapur.  
- You are directed to serve these directions to the unit and ensure the compliance of the directions.
4. Master file



सामन्य मूढी प्रथा नाश, शिक्षणाची नाने मोद

## कामगार उप आयुक्त, पालघर यांचे कार्यालय

एम. आय. डी. सी. कर्मचारी चसालत, तारापूर-चांडेसर रोड, चांडेसर (पश्चिम), ता. च जि. पालघर - ४०१५०४.  
दूरध्वनी क्रमांक :- ०२५२५५-२७०४२७

ईमेल - acltarapur@yahoo.com

क्र. काउआ/पालघर/अपघात/एएनके/२०२२ | १७०६

दिनांक :- 4 JUN 2022

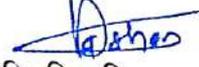
प्रति,

श्री. निखिलेश संजय गांध्रे,  
ज्युनिअर रिसर्च फेलो,  
रिजनल डायरेक्टर, पुणे.  
सेंट्रल पोल्युशन कंट्रोल बोर्ड.

विषय :- मा.राष्ट्रीय हरित न्यायाधिकरण, पुणे यांचेकडील दाखल दावा क्र.१९/२०२० च्या  
अनुषंगाने माहिती सादर करणेबाबत.

संदर्भ :- जिल्हाधिकारी पालघर कार्यालयाचे क्र.गृह/का.१/टे.४/हरीदलवाददाक्र.१९/२०२०/  
एएनकेफार्मा/ कावि/ ७८६/२२, दि.२५.०५.२०२२.

उपरोक्त विषयास अनुसरून कळविण्यात येते की, मे.ए.एन.के. फार्मा प्रा.लि., कंपनी व्यवस्थापनास  
जिल्हाधिकारी पालघर कार्यालयाच्या दि.२९.०३.२०२२ रोजीच्या पत्राच्या अनुषंगाने माहिती सादर  
करण्याबाबत दि.०१.०४.२०२२ रोजीच्या पत्राद्वारे कळविण्यात आले होते. त्यास अनुसरून कंपनी  
व्यवस्थापनाने दि.०४.०४.२०२२ रोजीच्या पत्राद्वारे माहिती सादर केली. परत दि.२६.०५.२०२२ रोजीच्या या  
कार्यालयाच्या पत्राच्या अनुषंगाने व्यवस्थापनाने दि.२८.०५.२०२२ रोजीच्या पत्राद्वारे कळविले आहे. सदर  
पत्राच्या आधारे संदर्भाधीन पत्राच्या अनुषंगाने दोन प्रपत्रातील माहिती तसेच कंपनी व्यवस्थापनाचे  
दि.०४.०४.२०२२ व दि.२८.०५.२०२२ रोजीच्या पत्राची प्रत यासोबत जोडून पाठविण्यात येत आहे, ही विनंती.  
सहपत्र :- वरीलप्रमाणे.

  
(कि.वि.दहिफळकर)  
कामगार उप आयुक्त,  
पालघर.

प्रत :- मा.जिल्हाधिकारी,पालघर.

Sr. No.	Name of Person	Gender	Age	Employee/ Civilian	Status of employment if employee	Salary	Avg Daily Wages (Rate of Maharashtra State
1	2	3	4	3	5	6	7
1	Shri Ilias Bashir Ansari	Male	58 Years	Watchmen	Temporary	Rs.500/- per day	Rs.432.15 /day 2020 minimum rate of wages Jan
2	Smt Nishu Rahul Singh	Female	24 Years	Madhuridevi Family Member	-	-	-
3	Smt Madhuri Vasistha Singh (Madhuri Devi) as mentioned in M/S Ank Pharma letter dt:04.04.2021	Female	49 Years	Helper	Temporary	Rs.450/- per day	Rs.412.92/-day 2020 minimum rate if wages Jan
4	Shri Golu Surendra Yadav	Male	20 Years	Rajmaatidevi Family Member	-	-	-
5	Smt Rajmatidevi Surendra Yadav	Female	36 Years	Helper	Permanent	Rs.450/- per day	Rs.412.92/-day 2020 minimum rate if wages Jan
6	Shri Mohan Ingle	Male	55 Years	Technician	Permanent	Rs.22000/- per month	Rs.11936/- month Rs.459.07/- day 2020 minimum rate if wages Jan
7	Shri Trinath Dasri	Male	41 Years	Outsider	-	-	-
8	Smt Khushi Yadav	Female	13 Years	Rajmaatidevi Family Member	-	-	-

Sr. No.	Name of Injured Person	Gender	Age	Employee/ Civilian	Status of Employment if employee	Salary
1	2 Shri Mulayam Yadav	3 Male	4 22 years	3 Maintenance Worker	5 Temporary	6 Rs.700/- per day
2	Shri Rakesh Kumar	Male	55 Years	Helper	Temporary	Rs.500/-per day
3	Shri Sachinkumar Yadav	Male	20 Years	Helper	Temporary	Rs.500/-per day
4	Shri Rohit Singh	Male	19 Years	Family Member	-	-
5	Shri Natwarlal Patel	Male	58 Years	Director of the Factory	Director of the Factory	-
6	Smt Prachi Rahul Singh	Female	6 years	Madhuridevi Family Member	-	-
7	Smt Rutika Rahul Singh	Female	3 Years	Madhuridevi family Member	-	-



# Ank Pharma Pvt. Ltd.

Manufacturers of BULK DRUGS & CHEMICALS

Office : B/70/B, Raj Madhur, Devidas Lane, Borivall (W), Mumbai - 400103.  
 Factory : Plot No. M-2, M.I.D.C., Turapur Dotsar, Dist. Thane, Maharashtra, India  
 Phone : Off: 022-2891 6545 (Mobile) 091-93207 01212 / 491 81081 0790?  
 E-mail : Info@ankpharma.in



Date: 04/04/2022

To,  
Office of Deputy Commissioner of Labour,  
Palghar

Subject: About Submitting Information

Letter No: Kra. Kaa.U.AA. / Palghar/Acident/2022/1102 Dated: 01/04/2022

Respected Sir,

Below with we are submitting following information

Sr. No	Name	Age	Name of Unit	Name of Hospital	Admit & Discharge Date	Hospitalization & Amt. Payment Made by	Nature of Injury	Permanant or Temporary Workers or Staff	Nature of Work	Salary Or Wages
1	Natvarbhai V Patel	58 Years		Thunga & Wockhardt	11.01.2020 To 20.03.2020	Ank Pharma Pvt. Ltd.	Blast Injury	Director		
2	Rohit Singh	19 Years		Thunga Hospital	11.01.2020 To 19.01.2020	Ank Pharma Pvt. Ltd.	Blast Injury		Outsider	
3	Sachin Kumar Yadav	20 Years		Thunga Hospital	11.01.2020 To 15.01.2020	Ank Pharma Pvt. Ltd.	Blast Injury	Temporary	Helper	500 Per Day
4	Pakesh Kumar	55 Years		Thunga Hospital	11.01.2020 To 13.01.2020	Ank Pharma Pvt. Ltd.	Blast Injury	Temporary	Helper	500 Per Day
5	Mulayam Yadav	22 Years		Thunga Hospital	11.01.2020 To 29.01.2020	Ank Pharma Pvt. Ltd.	Blast Injury	Temporary	Maintenace (Welder)	700 Per Day
6	Prachi Rahul Singh	6 Years		Thunga Hospital	11.01.2020 To 11.01.2020	Ank Pharma Pvt. Ltd.	Blast Injury	Madhuri Devi Family Members	Outsider	
7	Ritika Rahul Singh	3 Years		Thunga Hospital	11.01.2020 To 11.01.2020	Ank Pharma Pvt. Ltd.	Blast Injury	Madhuri Devi Family Members	Outsider	

8	Golu Surendra Yadav	20 Years		Thunga Hospital	11.01.2020	Ank Pharma Pvt. Ltd.	Death	Rajmaati Devi Family Members	Outsider	
9	Khushi Surendra Yadav	13 Years		Thunga Hospital	11.01.2020	Ank Pharma Pvt. Ltd.	Death	Rajmaati Devi Family Members	Outsider	
10	Mohan Suryabhan Ingle	55 Years		Thunga Hospital	11.01.2020	Ank Pharma Pvt. Ltd.	Death	Permanent	Technician	22000 per month
11	Mohammad Ilyas Ansari	58 Years		Thunga Hospital	11.01.2020	Ank Pharma Pvt. Ltd.	Death	Temporary	Watchman	500 Per Day
12	Rajmati Devi	36 Years		Thunga Hospital	11.01.2020	Ank Pharma Pvt. Ltd.	Death	Permanent	Helper	450 Per Day
13	Madhuri Devi	49 Years		Thunga Hospital	11.01.2020	Ank Pharma Pvt. Ltd.	Death	Temporary	Helper	450 Per Day
14	Mishu Singh	24 Years		Thunga Hospital	11.01.2020	Ank Pharma Pvt. Ltd.	Death	Madhuri Devi Family Members	Outsider	
15	Trinath Dasari	41 Years		Thunga Hospital	11.01.2020	Ank Pharma Pvt. Ltd.	Death		Outsider	

Hospitalization Expenses paid to Thunga Hospital : 3,00,000/-

Thanking you;

Yours faithfully;

For Ank Pharma Pvt. Ltd.





# Ank Pharma Pvt. Ltd.

508

Manufacturers of : BULK DRUGS & CHEMICALS  
Office : B/707/8, Raj Madhur, Devidas Lane, Borivali (W), Mumbai - 400103.  
Factory : Plot No. M-2, M.I.D.C., Tarapur Boisar, Dist. Thane, Maharashtra, India.  
Phone : Off.: 022-2891 6545 (Mobile) +91-93207 01212 / +91 81081 07902  
E-mail : info@ankpharma.in



Date : 28/05/2022

To,

Office of Deputy Commissioner of Labour,

Palghar

Sub : Submitting information.

Ref : काउआ/पालघर/अपघात/एएनके/२०२२/१७२३ दि. २६/०५/२०२२

Respected Sir,

This is to inform you that we are Submitting information as below.

Sr. No.	Name	Worker & Not Worker
1	Mohammad Ilyas Ansari	Temporary Watchmen
2	Madhuri Devi	Temporary Worker
3	Nishu Singh	Not Worker
4	Trinath Dasari	Not Worker

This is for your information and record.

You are requested to acknowledge the receipt of this letter.

Thanking You,

Yours Faithfully

For Ank Pharma Pvt. Ltd.





## महाराष्ट्र शासन

सह संचालक, औद्योगिक सुरक्षा व आरोग्य, संचालनालय, पालघर

मंगेश भुवन, १ ला मजला, अंबाडी रोड, गुरुद्वाराजवळ, वसई (प), जि.पालघर ४०१२०८

फोन नं-०२५०-२३३२६१८

Email Id- jddish.palghar-mh@gov.in

जा.क्र.असंऔसुवआ/पालघर/हरीत लवाद/नअदे/ ११४ /२०२२,

दिनांक :- 13 APR 2022

प्रति,  
मा जिल्हाधिकारी,  
जिल्हाधिकारी कार्यालय,  
पालघर.

विषय :- मा.राष्ट्रीय हरीत न्यायाधिकरण, पुणे यांचेकडील दावा क्र.१९/२०२० च्या अनुषंगाने

दिनांक २०/१२/२०२१ रोजी दिलेल्या आदेशाचे अनुषंगाने गठीत समितीस माहिती सादर करणे बाबत...

संदर्भ :- १) मा.राष्ट्रीय हरीत न्यायाधिकरण, पुणे यांचेकडे श्री. सय्यद मोहम्मद साबीर उस्मान, रा. मुंबई यांनी दाखल केलेल्या दाव्याच्या अनुषंगाने दिनांक २०/१२/२०२१ रोजी ऑनलाईन पध्दतीने पार पडलेल्या सुनावणी अनुषंगाने पारीत करण्यात आलेले आदेश.

२) श्री. प्रतिक डी. भरणे, वैज्ञानिक ई, रिजनल डायरेक्टर, सेंट्रल पोल्युशन कंट्रोल बोर्ड, पुणे यांचेकडील ईमेल संदेश दिनांक २५/०३/२०२२.

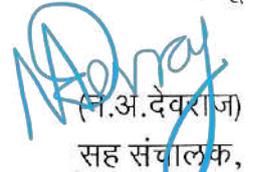
३) दिनांक २९/०३/२०२२ रोजीची ऑनलाईन बैठक.

४) आपले पत्र क्र. /गृह/का.१/टे.४/हरीदलवाददा क्र.१९/२०२०/एएनकेफार्मा/कावि-४०१/२२, दि.२९/०३/२०२२ रोजीचे.

महोदय,

उपरोक्त संदर्भियकित विषयानुसार आपणास सविनय सादर करण्यात येते की, सदर FACT-FINDING COMMITTEE चे सदस्य म्हणून औद्योगिक सुरक्षा व आरोग्य संचालनालयातर्फे सदर बैठकीस उपस्थिती ठेवली जाते. या कार्यालयाकडे असणारी उपलब्ध माहिती या आधीच कमेटीचे सचिवांकडे पाठविण्यांत आली आहे. तरी या कार्यालयात प्रतृत प्रकरणी मयत व जखमी व्यक्तींच्या बाबतीतील कार्यालयात उपलब्ध असणारी माहिती सोबत जोडून सादर करण्यांत येत आहे. यातील बहुतांश मुद्दे हे या कार्यालयाशी संबधीत नाही. त्यामुळे त्या मुद्यासंबधीत माहिती उप आयुक्त कामगार, पोलिस विभाग, आरोग्य विभाग व संबधीत कारखान्याचे व्यवस्थापन यांच्याकडून मागविण्यात यावी ही विनंती.

आपला विश्वासू,

  
(नि.अ.देवराज)  
सह संचालक,

औद्योगिक सुरक्षा व आरोग्य,  
पालघर, जि.पालघर.

सोबत:- वरील प्रमाणे. (INFORMATION OF DECEASED PERSON and INFORMATION OF INJURED PERSONS)

## INFORMATION OF INJURED PERSONS

Sr. No.	Name of Injured Person	Date of Birth/ Age	Name of unit Owner/ Labour Contractor (if workers employd through him)	Name of Hospital	No. of days of Hospitalization (Admit date and Discharge date)	Hospitalization Expenses (Amount) & Payment made by --	Nature of injury	Whether permanent or temporary staff/workers or daily wager	what tature of work he was performing	Salary /wage (per day /per month)	Disability Certificates (for injured person) from Medical Officer.
1	2	3	4	5	6	7	8	9	10	11	
1	Shri Mulayam Jagatbahadur Yadav	22 years	ANK PharmaPvt. Ltd	Thunga Hospital, Tarapur	11-01-2020 29-01-2020	Not Available	Injury on chest,back, head	---	---	---	---
2	Shri Rakesh Kumar Rajput	55 years	ANK PharmaPvt. Ltd	Thunga Hospital, Tarapur	11-01-2020 13-01-2020	Not Available	Minor injury on face	---	---	---	---
3	Shri Sachinkumar Rambabu Yadav	20 years	Guest of Family member	Thunga Hospital, Tarapur	11-01-2020 15-01-2020	Not Available	Minor injury on face & hand	---	---	---	---
4	Shri RohitVasistha Singh	19 years	Family member of worker	Thunga Hospital, Tarapur	11-01-2020 25-01-2020	Not Available	Injury on chest,back,head	---	---	---	---
5	Shri Natwarlal Patel	56 years	Director of the factory	Wockhardt Hospital, Mira Road	11-01-2020 25-01-2020	Not Available	Serious injury to face, head, stomach	---	---	---	---
6	Prachi Rahul Singh	6 years	Family member of workers	Thunga Hospital, Tarapur	11-01-2020 11-01-2020	Not Available	Minor injury face	---	---	---	---
7	Rutika Rahul Singh	3 years	Family member of workers	Thunga Hospital, Tarapur	11-01-2020 11-01-2020	Not Available	Minor injury face	---	---	---	---

## INFORMATION OF DECEASED PERSON.

Sr. No.	Name of Deceased Person	Date of Birth/ Age	Name of unit Owner/ Labour Contractor (if workers employ through him)	Qualification	Designation	Whether permanent / daily wager	Salary /wage (per day /per month)	Avg. daily wage (rate of Maharashtra State)	Salary per month, if permanent
1	2	3	4	5	6	7	8	9	
1	Ilias Bashir Ansari	40 years	ANK PharmaPvt. Ltd	---	Watchman	permanent	---	---	---
2	Nishu Rahul Singh	26 years	ANK PharmaPvt. Ltd	---	Helper	permanent	---	---	---
3	MadhuriVasistha Singh	46 years	ANK PharmaPvt. Ltd	---	Helper	permanent	---	---	---
4	GoluSurendra Yadav	19 years	Family member of Worker residing in Factory building	---	---	Family member	---	---	---
5	Rajmati Devi Surendra Yadav	40 Years	ANK PharmaPvt. Ltd	---	Helper	permanent	---	---	---
6	Mohan Ingle	45 years	ANK PharmaPvt. Ltd	---	Plant Operator	permanent	---	---	---
7	TrinathDasri	40 years	ANK PharmaPvt. Ltd	---	Lift maintenance person	permanent	---	---	---
8	Khushi Yadav	14 Years	Family member of Worker residing in Factory building	---	---	Family member	---	---	---



# Ank Pharma Pvt. Ltd.

Manufacturers of : BULK DRUGS & CHEMICALS

Office : B/707/8, Raj Madhur, Devidas Lane, Borivali (W), Mumbai - 400103.  
 Factory : Plot No. M-2, M.I.D.C., Tarapur Boisar, Dist. Thane, Maharashtra, India.  
 Phone : Off.: 022-2891 6545 (Mobile) +91-93207 01212 / +91 81081 07902  
 E-mail : info@ankpharma.in

Date : 07/04/2022

To,

Office of Deputy Commissioner of Labour,  
 Palghar

Sub : Payment of Compensation

Respected Sir,

This is to inform you that Ank Pharma Pvt. Ltd. ( hereinafter referred to as company ) has voluntarily deposited the compensation of the following persons details of which are set out as below.

Sr. No.	Name	Type of Injury	Amount of Compensation	Remark
1	Mohan Suryabhan Ingle	Death	Rs. 10,16,700/-	Deposit in Court
2	Mohammad Ilyas Ansari	Death	Rs. 6,97,073/-	Deposit in Court
3	Madhuri Devi	Death	Rs. 8,00,000/-	Deposit in court
4	Rohit Singh	Blast Injury	Hospital Expenses Paid + 25,000 cash	
5	Nishu Singh	Death	Rs.3,00,000/-	Deposit in court
6	Prachi Rahul Singh	Blast Injury	Rs. 50,000/- + Hospital Expenses Paid	Cash
7	Ritika Rahul Singh	Blast Injury	Rs. 50,000/- + Hospital Expenses Paid	Cash
8	Rajmati Devi	Death	Rs. 1,40,000/-	Cash
9	Golu Surendra Yadav	Death	Rs. 50,000/-	Cash
10	Khushi Surendra Yadav	Death	Rs. 50,000/-	Cash
11	Trinath Dasari	Death	Rs.25,000/-	Cash
12	Sachin Kumar Yadav	Blast Injury	Hospital Expenses Paid	
13	Rakesh Kumar	Blast Injury	Hospital Expenses Paid	
14	Mulayam Yadav	Blast Injury	Hospital Expenses Paid	

Hospitalization Expenses paid to Thunga Hospital : 3,00,000/-

This is for your information and record.

You are requested to acknowledge the receipt of this letter.

Thanking You,

Yours Faithfully

For Ank Pharma Pvt. Ltd.



Government of  Maharashtra

## Collector & District Magistrate Office Palghar (Home Branch)

District Headquarter, Palghar- Boisar Road, Kolgaon, Tal & Dist- Palghar  
Phone No. 02525-253111 email ID : collectorpalghar@gmail.com

No/Home/Desk-1/T.4/NGT/ANK Farma accident/W.R.176/22

Dt.17/02/2022

To,

Pratik D. Bharne  
Additional Director (Scientist 'E')  
Regional Directorate, CPCB,  
Pune

**Sub:-** Hon'ble National Green Tribunal Principle Bench Pune Application  
No.19/2020  
Sayyed Mohammed Sabir Usman  
Vs.  
Member Secretary-CPCB & Ors

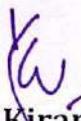
**Ref :-** 1) Hon'ble National Green Tribunal Principle Bench Pune order  
dt.20/12/2021.  
2) Meeting through VC on 08/02/2022.  
3) your email dt16/02/2022.

We are submitting a report as below with reference to your email  
dt.16/02/2022.

### **Compensation/ex-gratia paid to deceased & injured worker by Industry/ State Govt.**

Due to blast in A.N.K. Pharma Pvt Ltd. Plot No.M 13, Tarapur MIDC, Tal &  
Dist.Palghar eight people died in accident. This office released the compensation amount of 5  
Lakhs per person to their legal heirs from the Chief Minister Relief fund as below.

S.R.	Died person name	Legal heir name	Cheque Number
1	Illiyas Bashir Ansari (Age 40 yrs)	Aasma Illiyas Ansari (Wife)	193158
2	Nishu Rahul Singh (Age 26 yrs)	Rahul Vasishtha Singh (Husband)	193159
3	Madhuridevi Vasishtha Singh (Age 46 yrs)	Vasishtha Madan Singh (Husband)	193160
4	Golu Surendra Yadav (Age 19 yrs)	Surendra Bharat Yadav (Father)	193161
5	Rajmatidevi Surendra Yadav (Age 40 yrs)	Surendra Bharat Yadav (Husband)	193162
6	Mohan Suryabhan Ingale (Age 55 yrs)	Mangala Mohan Ingale (Wife)	193163
7	Khushi Surendra Yadav (Age 13 yrs)	Surendra Bharat Yadav (Father)	193164
8	Trinath Dilli Dasari (Age 40 yrs)	Jayanti Trinath Dasari (Wife)	193165

  
(Dr. Kiran Mahajan)

Add. District Magistrate Palghar

## ASSESSMENT OF COMPENSATION FOR DECEASED PERSON

Sr. no.	Name	Age at the time of death	Salary/Income per month	Addition to income for future prospectus #		Deduction of personal & living expenses \$	Total Income Per month	No. of months (one year)	Multiplier	Loss of Future Income	Loss of Love & affection	Loss of Estate & Funeral Expenses	Compensation
			(A)	(B)	C=A + B	(D)	E=C-D	(F)	(G)	(H=E xFx G)	(I)	(J)	(K=H+I+J)
1	Sh. Mohan Suryabhan Ingle	55	22000	3,300	25,300	8433	16,867	12	11	2226400	2,00,000	50,000	24,76,400
2	Sh. Ilias Bashir Ansari	58	13000	1,300	14,300	4767	9,533	12	9	1029600	2,00,000	50,000	12,79,600
3	Smt. Madhuri Vasistha Singh	49	11700	2,925	14,625	4875	9,750	12	13	1521000	2,00,000	50,000	17,71,000
4	Smt. Rajmatidevi Yadav	36	11700	5,850	17,550	5850	11,700	12	15	2106000	2,00,000	50,000	23,56,000
5	Sh. Trinath Dasri	41	11936	2,984	14,920	4973	9,947	12	14	1671040	2,00,000	50,000	19,21,040

(Refer **Annexure-XII**, for deceased persons Details-Name, Age, Salary/Wages and **Para 10.1.4 B** for factors taken in computation of compensation. In case of Shri. Trinath Dasri who came for Lift maintenance on day of incident. The committee considered him as a Temporary Technician and considered salary of Rs. 11936 per month as per applicable minimum wages rate per month, Govt of Maharashtra.

# - Addition to income for future prospectus -10% for Sr. No.1, 25% for Sr. No.2 & Sr. No. 5, 50% for Sr No.3 & 15% for Sr No.4 of salary/monthly income

\$- Deduction expenses for personal & living- 1/3 i.e. 33.33 %