

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE: CHENNAI**

ORIGINAL APPLICATION NO. 89 OF 2023 (SZ)

IN THE MATTER OF:

Tribunal on its own motion In Re:
"2 severely injured in reactor blast
at private pharma limited in
Anakapalli, Andhra Pradesh"

With

Andhra Pradesh Pollution Control Board
Andhra Pradesh and Ors

...Respondent(s)

REPORT FILED BY THE DISTRICT COLLECTOR ANAKAPALLI

Date- 01.08.2023.



**M/S MADHURI DONTI REDDY
ADVOCATE**

**STANDING COUNSEL FOR GOVERNMENT OF ANDHRA PRADESH
A.P. POLLUTION CONTROL BOARD
T.T.D. SUPREME COURT OF INDIA**

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Counsel for Respondents 1 to 4

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE: CHENNAI**

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It is certified that all the documents contained in the above annexure are true copies.

Date- 31-07-2023

COMPLAINEE REPORT FILED BY THE 2nd RESPONDENT DISTRICT COLLECTOR ANAKAPALLI ANDHRA PRADESH IN O.A NO.89 OF 2023 (SZ) BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL AT CHENNAI.

1. It is submitted that a severe fire accident took place on 30.06.2023 at 11.10 AM in M/s. Sahithi Pharma Private Limited (Solvent Recovery Unit) located at Plot No. 27C 1(Part), APSEZ, De-notified Area, Atchuthapuram, Rambilli, Anakapalli District. Immediately all the concerned officials viz., the District Collector, Anakapalli, the Superintendent of Police, Anakapalli, the Revenue Divisional Officer, Anakapalli, District Fire Officer, Anakapalli, Dy.Chief Inspector of factories, Visakhapatnam, local Tahsildar with his staff and local police have rushed to the spot and continuously monitored the situation till the fire was completely controlled. In the said mishap, seven persons received burns, out of which, 6 severely injured persons were shifted to KGH, wherein 05 injured persons later shifted to INDUS Hospital where they succumbed to death while undergoing treatment at INDUS Hospital and the leftover 01 injured person was succumbed to death while undergoing treatment at KGH. The remaining 7th injured person was admitted in Indus Hospital, Visakhapatnam for treatment and after recovery he was discharged on 6-7-2023.

2. It is submitted that, the District Collector & Magistrate, Anakapalli, vide proceedings dated 30.06.2023, has constituted a Committee with the following members to conduct an enquiry and submit the report. (Copy of the District Collector proceedings is enclosed for perusal). The Committee report is awaited.

1	Joint Collector, Anakapalli	Chairperson
2	Additional Superintendent of Police, Anakapalli	Member
3	District Fire Officer, Anakapalli	Member
4	Deputy Chief Inspector of Factories	Member
5	Environmental Engineer Pollution Control Board	Member
6	Revenue Divisional Officer, Anakapalli	Member
7	Deputy Commissioner of Labour, Anakapalli	Member
8	Prof. K.V.Ramesh , Dept. of Chemical Engg., Andhra University College of Engineering	Co-opted member


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3. It is further submitted that the Government of Andhra Pradesh has announced ex-gratia @ of Rs.25,00,000/- (Twenty five lakhs only) to each of the six families of the six deceased persons and accordingly, Government have released an amount of Rs.1,50,00,000/- and the same has been distributed to the next kin of the six deceased persons.
4. It is further submitted that, the Hon'ble NGT, Chennai in Suo Moto case vide order dt.18.07.2023 in O.A. No. 89 of 2023 (SZ) has passed the following order :-

"1. The Learned counsel Mrs. Madhuri Donti Reddy accepts notice on behalf of Respondents No. 1 to 4 and Ms. T. Hemalatha accepts notice on behalf of Respondent No.5.

2. Let the matter be listed on 02.08.2023 for filing of response."

5. It is submitted that the Deputy Chief Inspector of Factories, Visakhapatnam has submitted report dt.27-07-2023 on the fire accident as follows:-
- a) That a severe fire accident took place on 30.06.2023 at 11.10 AM in M/s. Sahithi Pharma Private Limited (Solvent Recovery Unit) located at Plot No. 27C 1(Part), APSEZ, De-notified Area, Atchuthapuram, Rambilli, Anakapalli District and the Deputy Chief Inspector of Factories, Visakhapatnam rushed to the factory at around At 11:56 Hrs and conducted accident enquiry.
- b) It is further reported that M/s. Sahithi Pharma Private Limited, Plot No. 27/C1, APSEZ, De-Notified area. Gurajapalem (Village), Rambilli (Mandal), Anakapalli District was registered under Factories Act.1948 in the year 2017 bearing R.No.104355. The manufacturing process in the factory is recovery of solvents from spent solvents through distillation

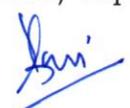

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process. The license limits are 286.5 Horse Power electric power and with 50 Workers; and the factory name was amended in the name of M/s. Sahithi Pharma Private Limited, from M/s. Sruthi Chemicals in the year 2021. The plans of the factory were approved vide Lr. No. D. Dis.A1/308/2017, dated 16-01-2017 by the Director of Factories, AP, Vijayawada and revised plans were approved vide Lr. No. LAE05-11021(35)/44/2021-A SEC-DOF - DOF dated 16/04/2021 of the Director of Factories, Andhra Pradesh, Vijayawada the name of the occupier is Sri. Penmasta Anjaneya Raju, age: 55 years, S/o. Jagannadha Raju and the name of the manager Sri. Chinta. Eswara Rao, age: 43 years, S/o. Parisinaidu.

c) It is further reported that the industry is a solvent recovery unit and the following spent solvents were being distilled in this factory over the time being.

(i) IsoPropyle Alcohol(IPA)	(xi) MDC
(ii) Acetone	(xii) Di ISO propyl Ether
(iii) Di Methyle Sulphoxide	(xiii) Iso propyl Ether
(iv) Toluene	(xiv) Tryethyle amine
(v) AcetoNytrile,	(xv) Cyclohexane
(vi) Tetra Hydro Furan	(xvi) O-xylene
(vii) Mixed solvents.	(xvii) N-Butanol
(viii) Methanol	(xviii) MIBK
(ix) Di ethyle amine	(xix) DMF
(x) Ethyle acetate	

d) It is further reported that on 30.06.2023 at about 11:10 AM, while distillation of spent solvent DMSO (Di Methyl Sulphoxide) vapour column


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bursting, fire broke out and immediately spread to tank truck loading bay near product storage tanks where loading of Iso Propyl Alcohol was being carried out and solvent drum storage sheds in all other locations in the factory causing severe injuries to 7 personnel. In this major accident the solvent distillation kettle of 8 KL capacity flew in air and fell in a nearby factory (M/s. Laurus Labs Limited, (Unit-VI)) at a distance of around 70 meters. Immediately firefighting was done by neighboring industry i.e., M/s. Laurus Laboratories Limited, Unit-6 with their firefighting equipment but fire was not controlled. The fire tenders (14 No's) from M/s. Asian Paints, Atchuthapuram fire station, JNPC, Parawada, NTPC, and Anakapalli fire station rushed the spot and started fire-fighting. The fire was controlled by 4:30PM.

- e) The Deputy Chief Inspector of Factories, Visakhapatnam also reported that the following are the non-compliances on part of both the occupier and manager of the factory
- (i) Vent size calculations were not done for the distillation process in the Kettles/reactors and a safety valve of inadequate capacity and size has been provided to the Reactor. Due to this, the excess pressure built up in the reactor could not be discharged safely without affecting the reactor and vapour column.
 - (ii) The studies related to ascertain the maximum heat generation potential in the distillation process were not got done based on which the Kettle/ reactor cooling system has to be designed. Due to this, the Kettle could not handle the excess heat due to deviation of parameters in it like pressure, temperature beyond the safe limits which lead to uncontrollable thermal runaway.


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- (iii) Di Methyl Sulphoxide (DMSO) is being distilled without getting HAZOP study done in order to identify and evaluate risks by considering the possible deviations during the process.
- (iv) Hazard Analysis and Risk Assessment (HARA) report was prepared without considering the product of (Di Methyl Sulphoxide).
- (v) No interlocking arrangement was provided between the vacuum pump and steam input to cut off steam input to kettle/reactor jacket and auto activation of inhibitors in case of failure of vacuum pump.
- (vi) The spent solvent of (Di Methyl Sulphoxide) was not completely analyzed for presence of incompatible substances which may lead or initiate thermal runaway in distillation process.
- (vii) Failed to identify and test all the plants, pipelines, equipment and machinery along with vacuum pump once in two years by evolving a suitable test procedure by a competent person failure of which can raise to an emergency situation.
- (viii) Failed to identify and examine all the plants, pipelines, equipment and machinery along with vacuum pump once in a month by evolving a suitable test procedure by a competent person failure of which can raise to an emergency situation.
- f) It was found that the said accident and its consequences had taken place as a result of noncompliance of various legal obligations. With this Accident, there is a reason to believe that there is an imminent danger to the safety of the persons employed therein, if the kettles/reactors are allowed to operate for the manufacturing process without complying the violations. Hence prohibitory orders are issued and the copy of the same is enclosed herewith.
- g) The Deputy Chief Inspector of Factories also reported that a show cause notice was issued to both the occupier and manager of the factory on



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Dt.22.07.2023 for the contraventions lead to the accident and further action will be initiated in due course as per law.

6. It is further submitted that, the Environmental Engineer, APPCB, Visakhapatnam has also submitted report that, the AP Pollution Control Board has taken up the following for Air & Water pollution monitoring:

- a) At the time of incident, the Board officials carried out VOC monitoring near the accident site with hand held VOC meter and the VOCs concentration near the accident area is found to be 0.8 to 8.0 ppm. Further VOC monitoring conducted in the downward wind direction at a distance of 2.8 km in the premises of M/s. Brandix India Apparel City Pvt., Ltd and the concentration of VOCs found to be 0.5 to 0.8 ppm
- b) The Concentrations of PM10, PM2.5, SO2,NO2, Ammonia, CO and other parameters monitored are observed to be within the NAAQ standards and No abnormal VOC concentrations are recorded in the mobile CAAQMS monitoring data. (Monitoring data is enclosed as Annexure-1).
- c) The samples of contaminated waste water from collection sump near northeast corner and stagnated wastewater near security gate were collected on 30.06.2023 and the samples are having high acidic pH i.e, 1.04 and 0.97 and High COD. Hence 86 KL HTDS of wastewater generated during firefighting was disposed to CETP of AETL and CETP of Vishaka Pharma city Limited through tankers for further treatment and disposal. (Waste water Analysis reports are enclosed as Annexure III).
- d) Hazardous solid waste generated during fire accident is yet to be ascertained. In this regard, the industry was directed to send the hazardous waste to TSDF, Parawada through APEMCL duly following the



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online manifest system through APEMCL and submit the manifest copies to this office.

- e) The AP Pollution Control Board reviewed the case in the External Advisory Committee meeting held on 07.07.2023 and issued Stop Production Order to the industry on 12.07.2023.
- f) The cause of the incident and reasons for the failure of the safety system are being investigated by the Deputy Chief Inspector of Factories, who is the prescribed authority.

In the circumstances explained above and also in pursuance to the orders of the Hon'ble National Green Tribunal in O.A.No.89/2023, dt.18.07.2023 this preliminary report is submitted for kind perusal of the Hon'ble Green Tribunal.

Dated at Anakapalli on this the 31st day July 2023



DISTRICT COLLECTOR
~~DISTRICT COLLECTOR~~
ANAKAPALLI

Item No.1:-

**BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI**

(Through Video Conference)

Original Application No.89 of 2023 (SZ)

IN THE MATTER OF:

Tribunal on its own motion In Re:
"2 severely injured in reactor blast
at private pharma limited in
Anakapalli, Andhra Pradesh"

With

Andhra Pradesh Pollution Control Board
Andhra Pradesh and Ors.

...Respondent(s)

Date of hearing: 18.07.2023.

CORAM:

HON'BLE Smt. JUSTICE PUSHPA SATHYANARAYANA, JUDICIAL MEMBER

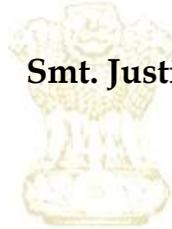
HON'BLE Dr. SATYAGOPAL KORLAPATI, EXPERT MEMBER

For Applicant (s): Suo Moto by Court.

For Respondent(s): Mrs. Madhuri Donti Reddy for R1 to R4.
Ms. T. Hemalatha for R5.

ORDER

1. The learned counsel Mrs. Madhuri Donti Reddy accepts notice on behalf of Respondents No.1 to 4 and Ms. T. Hemalatha accepts notice on behalf of Respondent No.5.
2. Let the matter be listed on 02.08.2023 for filing response.



Sd/-

Smt. Justice Pushpa Sathyanarayana, JM

Sd/-

Dr. Satyagopal Korlapati, EM

**O.A. No.89/2023 (SZ)
18th July, 2023. Mn.**



Photograph showing where accident occurred at M/s. Sahithi Pharma Pvt.Ltd,(Unit-1)



Fire broke out at SRS plant.



Fire broke out at SRS plant.





Exploded Distillation Reactor of Sahithi in adjacent Laurus unit-6.

Photograph showing the Kettle/ reactor placed location after the accident .



Photograph showing the bursted vapour column after the accident





Photograph of tank truck location where Iso Propyl Alcohol was being loaded at the time of accident.



Rc.No.569/2023/SA-1/Coordn, Dt.30/06/2023.

Collector's Office,
Anakapalli.

**PROCEEDINGS OF THE COLLECTOR & DISTRICT MAGISTRATE,
ANAKAPALLI**

PRESENT: RAVI PATTANSHETTI, I.A.S.,

@@@

Sub: Industrial Accidents – Anakapalli District – Incident occurred in the APSEZ (De-notified area) of Rambilli Mandal in Sahithi Pharma PVT., Ltd., - on 30.06.2023 – 02 person died and 05 persons injured – Constitution of a Committee to enquire into the incident and submission of enquiry report – Orders – Issued

Read: 1. Rc.no. 204/2023JA of the Tahsildar, Rambilli Dt:30.06.2023.

2. Preliminary Investigation report of the Deputy Chief inspector of factories, Visakhapatnam dt:30.06.2023.

@@@

ORDER:-

Whereas, the Tahsildar, Rambilli reported that a fire accident took place at about 11:10 AM on 30.06.2023 at Sahithi Pharma Pvt., Ltd., located in APSEZ, Atchutapuram (De- notified Area) Rambilli Mandal, Anakapalli District during solvent loading causing severe burn injuries to 07 persons and subsequent death of 2 persons.

Therefore, a committee is hereby constituted with the following officers to conduct an inquiry and submit a detailed report on this accident:

1	Joint Collector, Anakapalli	Chairperson
2	Additional Superintendent of Police, Anakapalli	Member
3	District Fire Officer, Anakapalli	Member
4	Deputy Chief Inspector of Factories	Member
5	Environmental Engineer,A.P. Pollution Control Board	Member
6	Revenue Divisional Officer, Anakapalli	Member
7	Deputy Chief Commissioner of Labour, Anakapalli	Member
8	Any expert/person as decided by Chairperson	Co-opted member

The Committee constituted shall submit the report to the undersigned at the earliest.

Ravi Pattanshetti

**District Collector,
Anakapalli.**

To

The Joint Collector, Anakapalli.

The Additional Superintendent of Police, Anakapalli.

The District Fire Officer, Anakapalli.

The Deputy Chief Inspector of factories

The Environmental Engineer A.P. Pollution control board.

The Revenue Divisional Officer, Anakapalli.

The Deputy Chief Commission of Labour, Anakapalli.

Copy submitted Spl. Chief Secretary, Revenue (DM) Department, A.P., Amaravathi, Guntur for information.

Copy to the Director, Disaster Management & Managing Director, APSDMA, Kunchanapalli, Guntur.

Collector's Office, Anakapalli.

Rc.No.569/2023/SA-1/Coordn, Dt. 07/07/2023.

PROCEEDINGS OF THE COLLECTOR & DISTRICT MAGISTRATE, ANAKAPALLI

PRESENT: RAVI PATTANSHETTI, I.A.S.,

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Sub: Industrial Accidents – Anakapalli District – Incident occurred in the APSEZ (De-notified area) of Rambilli Mandal in Sahithi Pharma PVt., Ltd., - on 30.06.2023 – 02 person died and 05 persons injured – Appointment of expert/person as a member of a Committee to enquire into the incident and submission of enquiry report – Orders – Issued.

Read: This office Progs.Rc.No.569/2023/SA-1/Coordn, Dt.30/06/2023

@@@

ORDER:-

Whereas, a committee is been constituted in the proceeding read above, under the Chairmanship of Joint Collector to conduct an inquiry on fire accident took place at Sahithi Pharma Pvt., Ltd., located in APSEZ, Atchutapuram (De- notified Area) Rambilli Mandal, Anakapalli District at about 11:10 AM on 30.06.2023 during solvent loading.

In view of the above, the following expert/person is hereby appointed to co-opt the committee during inquiry and submit a detailed report on this accident:

1	Sri K.Venkata Ramesh, Professor, Department of Chemical Engineering, Andhra University.	Co-opted Member
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Ravi Pattanshetti
District Collector,
Anakapalli.

To

The above individual

Copy to the Committee members

Copy submitted Spl. Chief Secretary, Revenue (DM) Department, A.P., Amaravathi, Guntur for information.

Copy to the Director, Disaster Management & Managing Director, APSDMA,

Kunchanapalli, Guntur.

Report of the A.P. Factories Department in compliance with the Hon'ble NGT, Chennai order dated 18.07.2023 in O.A No. 89 of 2023 (SZ) suo-motu case taken up by Hon'ble Tribunal in the matter of "severely injured in reactor blast at private pharma limited in Anakapalli, Andhra Pradesh"

1. It is to submit that a severe fire accident took place on 30.06.2023 at 11.10 AM in M/s. Sahithi Pharma Private Limited (Solvent Recovery Unit) located at Plot No. 27C 1(Part), APSEZ, De-notified Area, Atchuthapuram, Rambilli, Anakapalli District.
2. The Hon'ble NGT, Chennai in its order dt. 18.07.2023 in O.A. No. 89 of 2023 (SZ) in the matter of : *Tribunal n its own motion In Re: "severely injured in reactor blast at private pharma limited in Anakapalli, Andhra Pradesh" with Andhra Pradesh Pollution Control Board and Ors issued the following order:*
 - "1. The Learned counsel Mrs. Madhuri Donti Reddy accepts notice on behalf of Respondents No. 1 to 4 and Ms. T. Hemalatha accepts notice on behalf of Respondent No.5.*
 - 2. Let the matter be listed on 02.08.2023 for filing of response."*
3. Further it is submitted that a severe fire accident took place on 30.06.2023 at 11.10 AM in M/s. Sahithi Pharma Private Limited (Solvent Recovery Unit) located at Plot No. 27C 1(Part), APSEZ, De-notified Area, Atchuthapuram, Rambilli, Anakapalli District. At 11:56 Hrs the Deputy Chief Inspector of Factories, Visakhapatnam received a telephone message about the accident from the Director of factories, Andhra Pradesh, Vijayawada and was instructed to move to the accident location and report details. The Deputy Chief Inspector of Factories, Visakhapatnam immediately informed the same to the Joint Chief Inspector of Factories, Visakhapatnam & Inspector of Factories, Visakhapatnam – II and rushed to the factory at around 01:40 PM and conducted accident enquiry.
4. M/s. Sahithi Pharma Private Limited, Plot No. 27/C1, APSEZ, De- Notified area. Gurajapalem (Village), Rambilli (Mandal), Anakapalli District was registered under Factories Act.1948 in the year 2017 bearing R. No.104355. The manufacturing process in the factory is recovery of solvents from spent solvents through distillation process. The license limits are 286.5 Horse Power electric power and with 50 Workers; and the factory name was amended in the name of

M/s. Sahithi Pharma Private Limited, from M/s. Sruthi Chemicals in the year 2021. The plans of the factory were approved vide Lr. No. D. Dis.A1/308/2017, dt. 16-01-2017 by the Director of Factories, AP, Vijayawada and revised plans were approved vide Lr. No. LAE05-11021(35)/44/2021-A SEC-DOF - DOF dt 16/04/2021 of the Director of Factories, Andhra Pradesh, Vijayawada The name of the occupier is Sri. Penmasta Anjaneya Raju, age: 55 years, S/o. Jagannadha Raju and the name of the manager Sri. Chinta. Eswara Rao, age: 43 years, S/o. Parisinaidu.

5. The industry is a solvent recovery unit. It was observed that the following spent solvents were being distilled in this factory over the time being.

- | | |
|-----------------------------|---------------------------|
| (i) IsoPropyle Alcohol(IPA) | (xi) MDC |
| (ii) Acetone | (xii) Di ISO propyl Ether |
| (iii) Di Methyl Sulphoxide | (xiii) Iso propyl Ether |
| (iv) Toluene | (xiv) Tryethylene amine |
| (v) AcetoNitrile, | (xv) Cyclohexane |
| (vi) Tetra Hydro Furan | (xvi) O-xylene |
| (vii) Mixed solvents. | (xvii) N-Butanol |
| (viii) Methanol | (xviii) MIBK |
| (ix) Di ethyle amine | (xix) DMF |
| (x) Ethyle acetate | |

6. On 30.06.2023 at about 11:10 AM, while distillation of spent solvent DMSO (Di Methyl Sulphoxide) vapour column bursted, fire broke out and immediately spread to tank truck loading bay near product storage tanks where loading of Iso Propyl Alcohol was being carried out and solvent drum storage sheds and other all other locations in the factory causing severe injuries to 7 personnel. In this major accident the solvent distillation kettle of 8 KL capacity flew in air and fell in a nearby factory (M/s. Laurus Labs Limited, (Unit-VI)) at a distance of around 70 m. Immediately firefighting was done by neighboring industry i.e. M/s. Laurus Laboratories Limited, Unit-6 with their firefighting equipment but fire was not controlled. The fire tenders (14 No's) from M/s. Asian Paints, Atchuthapuram fire station, JNPC, Parawada, NTPC, and Anakapalli fire station rushed the spot and started fire-fighting. The fire was controlled by 4:30PM. The seven injured persons were shifted to KIMS ICON Hospital Sheelanagar, Visakhapatnam for treatment. Later they were shifted to KGH Hospital, Visakhapatnam. Out of 7

persons, two persons were died during the treatment on the same day and later four persons were succumbed to burn injuries and one person condition is stable. Further, 4 fire crew of AP State Disaster Response and Fire Management were also injured while fire-fighting, and they were shifted to District Hospital, Anakapalli.

7. (DETAILS OF THE DECEASED WORKER)

1. Uppada Thirupathi, S/o. Ramu, age: 28 years, Manufacturing Junior Operator (Regular), of C 65, SC Colony, Koratam, Vizianagaram – 531 116, was died on 30-06-2023 at 4:30 PM in KGH Hospital, Visakhapatnam.
2. Paila Sattibabu, S/o. Gangu Naidu, age: 38 years, Manufacturing Assistant (Regular), of Kotha Yellavaram Post, Golugonda, Visakhapatnam – 535 126 was died on 30-06-2023 at 4:30 PM in KGH Hospital, Visakhapatnam.
3. Simmengi AppaRao, S/o. Lacchanna, age: 52 years, Manufacturing Assistant (Regular), of 1-1, Vedullapalem, Nakkapalle, Visakhapatnam – 531 061 was died on 02-07-2023 at 10.30 pm in INDUS Hospital, Visakhapatnam.
4. Rameswar Bhuyan, S/o. BijayKunar Bhuyan, age: 35 years, Manufacturing Shift In-Charge (Regular), of AT/PO- Kamarada District – Balasore, Odissa 756 035 was died on 04-07-2023 at 8:00 AM in INDUS Hospital, Visakhapatnam.
5. Sadireddy Rajubabu, S/o. AppaRao, age: 35 years, Manufacturing Junior Operator (Regular), of 3-9, Rebaka, Nakkaplle (M), Visakhapatnam 531 126 was died on 06-07-2023 at 5:35 PM in INDUS Hospital, Visakhapatnam.
6. Singamsetti Nookinaidu, S/o. JanardhanRao, age: 47 years, Helper (Contract Workmen), of H. No: 6-33, Dharapalem (Post), Rambilli (M), Visakhapatnam 531 061 was died on 06-07-2023 at 5:00 AM in KGH Hospital, Visakhapatnam.

(DETAILS OF THE INJURED WORKER):-

7. Sri. Pilla Santhosh Kumar, S/o. Ranga, age: 36 years, QA-Executive (Regular), of H. No: 26-4-51, Kondakoppaka (Village & Post), Anakapalli, was Discharged on 06-07-2023 from Indus Hospital, Visakhapatnam.
8. The following non compliances on the part of both the occupier and manager of the factory were observed.
- (i) Vent size calculations were not done for the distillation process in the Kettles/reactors and a safety valve of inadequate capacity and size has been provided to the Reactor. Due to this, the excess pressure built up in the reactor could not be discharged safely without affecting the reactor and vapour column.
 - (ii) The studies related to ascertain the maximum heat generation potential in the distillation process were not got done based on which the Kettle/ reactor cooling system has to be designed. Due to this, the Kettle could not handle the excess heat due to deviation of parameters in it like pressure, temperature beyond the safe limits which lead to uncontrollable thermal runaway.
 - (iii) Di Methyl Sulphoxide (DMSO) is being distilled without getting HAZOP study done in order to identify and evaluate risks by considering the possible deviations during the process.
 - (iv) Hazard Analysis and Risk Assessment (HARA) report was prepared without considering the product of (Di Methyl Sulphoxide).
 - (v) No interlocking arrangement was provided between the vacuum pump and steam input to cut off steam input to kettle/reactor jacket and auto activation of inhibitors in case of failure of vacuum pump.
 - (vi) The spent solvent of (Di Methyl Sulphoxide) was not completely analyzed for presence of incompatible substances which may lead or initiate thermal runaway in distillation process.
 - (vii) Failed to identify and test all the plants, pipelines, equipment and machinery along with vacuum pump once in two years by evolving a suitable test procedure by a competent person failure of which can raise to an emergency situation.



ANDHRA PRADESH POLLUTION CONTROL BOARD
 Dr. YSR Paryavaran Bhavan, APIIC Colony Road,
 Gurunanak Colony, Autonagar, Vijayawada- 520007
 Phone. No.0866-2463200, Website : <https://pcb.ap.gov.in/>



Order No. 782/APPCB/HO/ECS/ANKP/VSP/2023-

Date:12/07/2023.

STOP PRODUCTON ORDER

Sub:APPCB – HO - ECS - M/s. Sahithi Pharma Private Limited (Unit-I) (Formerly M/s. Sruthi Chemicals (Unit-I) (Solvent Recovery Unit), Plot No. 27C 1(Part), APSEZ, De-notified Area, Atchuthapuram, Rambilli, Anakapalli District – Fire accident occurred in the industry on 30.06.2023 - Non-compliance of CTO & HWA - EAC meeting held on 07.07.2023 – **Stop Production Order - Issued** - Reg.

Ref:

1. Consent Order No: APPCB/VSP/VSP/340/CFO/HO/2017 dated 22.12.2021., valid up to 31.12.2026
2. RO, Visakhapatnam Notice No. 1003/PCB/RO-VSP/2023-77, Dt. 27.05.2023
3. Fire accident occurred at your industry on 30.06.2023
4. External Advisory Committee (Task Force) meeting held on 07.07.2023.

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WHEREAS you are operating an industry in the name & style of M/s. Sahithi Pharma Private Limited (Unit-I) located at Plot No. 27C 1(Part), APSEZ, De-notified Area, Atchuthapuram, Rambilli, Anakapalli District and engaged in Solvent Recovery activity.

WHEREAS you have obtained renewal of CTO & HWA on 22.12.2021 for a period up to 31.12.2026 for recovery of solvents through distillation of Spent / Mixed solvents i.e., IPA, Methanol, Acetone, DMF, DMSO, THF, N – Butanol, Toluene, Acetonitrile, Mixed Solvent, Diethyl Amine, Ethyl Acetate, O- Xylene, Cyclohexane, DME, MIBK, ISO Propyl Ether, Triethyl Amine etc.) of 30 KLD and Dilute Caustic solution (from IPA, THF, MTHF recovery system) of 1.0 KLD as by-product.

WHEREAS the Board officials inspected your industry on 06.05.2023 and observed that the you have not provided drum detoxification facility, storing chemical drums openly, not conducted safety audit and not conducted mock drills regularly.

WHEREAS a notice was issued to your industry vide ref. 2nd cited, to implement the following and submit compliance report along with self certification on compliance of all the CTO conditions within 15 days

- a. The industry shall conduct annual safety audit and shall implement the recommendations of the safety audit.
- b. The vent of the condenser shall be passed through VOC absorption media like activated carbon and shall comply with the prescribed standards.
- c. The industry shall conduct mock drills for gas leakage scenarios also in addition with fire safety and other chemical spills.
- d. The industry shall carryout calibration of safety equipment and leak detection systems at regular intervals and shall certify the same with the Factories Department. That

certified copy shall be submitted to the APPCB, Regional Office.

- e. The industry shall store the chemical containing drums in a closed shed with fire hydrant systems.
- f. The industry shall comply with the Technical suggestions at Chapter No. 7.3 & 7.4 for Hazardous Chemical handling industries by High Power Committee (HPC) of Govt. of Andhra Pradesh.

WHEREAS a fire accident occurred at your industry premises on 30.06.2023 leading to death of six personnel, injury to one person of the industry and injuries to 4 fire crew of AP State Disaster Response and Fire Management.

WHEREAS the Board officials inspected your industry on 30.06.2023 and reported the following –

- a. At the time of accident, the industry is in operation for distillation of spent IPA, DMSO, THF, Toluene and Acetonitrile solvents.
- b. At the time of incident, the Board officials carried out VOC monitoring near the accident site and in the downward wind direction at a distance of 2.8 km in the premises of M/s. Brandix India Apparel City Pvt., Ltd.
- c. The VOCs concentration near the accident area is found to be 0.8 to 8.0 ppm and near the Brandix it is found to be 0.5 to 0.8 ppm. Ambient air quality was also monitored by mobile CAAQM station near M/s. Brandix India Apparel City Pvt., Ltd and the monitoring was continued for next day.
- d. The samples of contaminated waste water from collection sump near northeast corner and stagnated wastewater near security gate samples collected during inspection on 30.06.2023 are having high acidic pH i.e, 1.04 and 0.97 and High COD. High acidic nature & high COD may be due to mixing of acids and organics with fire fighting water. The details of the analysis reports of the samples are as follows –

S.NO.	Parameter	Contaminated water sample collected from the drain (Near the Security Gate of M/S Sahithi Pharma)	Contaminated water sample collected from the drain 100 mtrs away from the incident site
1.	pH	1.01	0.98
2.	Total Dissolved Solids	60900 mg/L	60788 mg/L
3.	Chemical Oxygen Demand	42000 mg/L	41800 mg/L

- e. The compounds identified in the samples are as follows –

S.NO.	Compounds identified
1.	Ethanol -1- (butoxyethoxy)
2.	Cycloctanol, 2-mercapto
3.	Iso butyrainilide
4.	4-(3-methoxyphenyl)-3 Hexanone
5.	Dodecanoic Acid, 1-methylethylester
6.	1,1 biphenyle 33' dimethoxy
	Trityl Hydroperoxide
8.	Pyrazine,2,5-diethyl 3-6 Diphenyl
9.	Triphenyl phosphonic oxide
10.	Desmethyl citalopram

1 1.	1 -Monolinoleoylglycerol trimethyl silyl ether
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- f. Ambient air samples near the incident site were collected in tedlar bags and the contaminated water generated from the accident samples were also collected from storm water drain outside the industry gate and the same are analyzed. As per the analysis reports of the samples the following compounds were identified –

S.NO.	Description of the Sample	Compounds Identified
1.	Sample collected at 100 mtrs from the incident site	Cholestan -3-01-2 meth lene- 3 beta 5 alpha
2.		1 -Heptatriacetanol
3.		3,88'-Trimethoxy-3-piperid 1-2,2 binbapthalene-1, 1',4 ,4' tettane
4.		l-Meonolinoleoylglycerol trimethyl silylether
1.	Sample collected at security gate of M/S Sahithi Pharma Pvt. Lt, (Unit-I)	Benximidezole -5- Carboxylic acid, 2 methyl-l-phenyl
2.		2-Thiazolomine, 4-(3,4 dimethoxyphenyl) 5-methyl
3.		3-(3-Bromopheyl) 7-Chloro, 3-4-dihydro-10-Hydrpxy -acridine-dione
4.		10-Heptadecen-8-yonic acid methyl ester
5.		Carotene " 22 Tetrahydro" dimetho
6.		Cyclobarbital
1.	Sample collected near main gate of M/S Cohance Life Sciences	1 , 2- Benxisothiazol-3-amine tbdns
2.		Benximidezole -5- Carboxylic acid, 2 methyl-l-phenyl
3.		Cholestan -3-01-2 methylene-(3 beta 5 alpha)
4.		2-Thiazolomine, 4- 3,4 dimethoxyphenyl) 5-methyl
5.		l-Meonolinoleoylglycerol trimethyl silylether

- g. Various organic compounds are identified in the GC – MS analysis of waste water, soil, solid waste and ambient air.
- h. Approx. 86 KL (HTDS) of wastewater generated during fire fighting was collected into the storm water collection pit and disposed to CETP of AETL and CETP of Vishaka Pharma city Limited for further treatment.
- i. Approximate hazardous solid waste generated during fire accident is yet to be ascertained as the place is under the control of Factories Department. In this regard, the industry was directed to send the hazardous waste to TSDF, Parawada through APEMCL duly following the online manifest system and to submit the manifest copies of the disposal to this office.
- j. The cause of the incident and reasons for the failure of the safety system are being investigated by the Deputy Chief Inspector of Factories, who is the prescribed authority.

WHEREAS a hearing was conducted before the External Advisory Committee (Task Force) Meeting of A.P. Pollution Control Board on 07.07.2023. The representatives of the industry and the EE, RO, Visakhapatnam attended the meeting through VC. The EE, RO, Visakhapatnam informed that after the fire accident 86 KL of waste water generated from fire fighting activity was collected and sent to CETP for further treatment and disposal. He informed that the safety audit conducted by the District level committee observed violation of

the prescribed safety norms. The cause of the accident and reasons for the failure of the safety systems are being investigated by the Factories Department (Prescribed Authority). After detailed discussions, the committee recommended to issue stop production order to the industry for violations lead to fire accident.

In view of the above, the Board hereby issues Stop Production Order to M/s. Sahithi Pharma Private Limited (Unit-I), (Formerly M/s. Sruthi Chemicals (Unit-I) (Solvent Recovery Unit) to immediately stop all such activities associated to undertake production at your unit located at Plot No. 27C 1(Part), APSEZ, De-notified Area, Atchuthapuram, Rambilli, Anakapalli District under Sec.33 (A) of Water (Prevention and Control of Pollution) Amendment Act, 1988 and under Sec.31 (A) of Air (Prevention & Control of Pollution) Amendment Act, 1987 and directed to comply with the above.

You are hereby directed to note that, should you violate this order and operate the unit, closure order will be issued to your unit under Sec.33 (A) of Water (Prevention and Control of Pollution) Amendment Act, 1988, and under Section 31 (A) of Air (Prevention & Control of Pollution) Amendment Act, 1987 along with orders for disconnection of power supply, in the interest of Public Health and Environment and you will be also liable for prosecution in the Court of Judicial Magistrate First Class under Sec.41 (2) of Water (Prevention and Control of Pollution) Amendment Act, 1988 and under Sec.37 of Air (Prevention and Control of Pollution) Amendment Act, 1987, the punishment for which includes imprisonment for a term which shall not be less than one year six months and which may be extended to six years and with fine.

This Order comes into effect from today i.e.,12/07/2023.

B Sreedhar las
MEMBER SECRETARY

To
The occupier,
M/s. Sahithi Pharma Private Limited (Unit-I),
(Formerly M/s. Sruthi Chemicals (Unit-I)
(Solvent Recovery Unit), Plot No. 27C 1(Part),
APSEZ, De-notified Area, Atchuthapuram,
Rambilli, Anakapalli District.

Copy to:

1. The Joint Chief Environmental Engineer, Zonal Office, Visakhapatnam for information and necessary action.
2. The Environmental Engineer, Regional Office, Visakhapatnam for information and necessary action.