

Item No. 08

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

(By Video Conferencing)

Original Application No.164/2022

S. Srinivas Rao & Ors.

Applicant(s)

Versus

State of Andhra Pradesh

Respondent

Date of hearing: 28.09.2022

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE PROF. A. SENTHIL VEL, EXPERT MEMBER
HON'BLE DR. AFROZ AHMAD, EXPERT MEMBER**

Respondent(s): Mr. Vijay Kumar G. Srkr, Member Secretary with Mr. TVS
Raghavendra Sreyas, Advocate for APPCB

Mr. Shrikesh B. Lathkar, District Magistrate, Srikakulam

ORDER

1. Grievance in this application is against unscientific dumping of marble slurry on agricultural land near Harischandrapuram railway station, Kotabommali Mandal, Srikakulam District, Andhra Pradesh, adversely affecting the environment and public health. Marble slurry in question is generated from the Marble Polish units located at Nimmada, Peddabammidi and Yetturallapdu, in violation of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981 and the Environment (Protection) Act, 1986. 700 stone cutting and polishing units were located in Tandur which have now

been shifted to the industrial area. Adverse impact of dumping of marble slurry is air pollution affecting the public health as well as the agricultural land in the area due to increased salinity of soil, micronutrient deficiency and reduced percolation of water. Fine particles of slurry settle on the crops and degrade the quality of resources. Water quality of irrigation canal gets deteriorated which in turn adversely affect the eco-system.

2. Suggestions given in the application are:-

- “1) Marble Slurry dumping site may be located within the existing marble processing premises or it may be located at isolated locations preferably 01 KM away from any notified habitat area human habitation at suitable location as approved by the SPCB/PCC and shall be provided with proper approach roads for safe transportation of marble slurry.*
- 2) The marble slurry dumping site shall not be located on the 100-year flood plain where it will restrict the flow and marble slurry dumping site should be located at least at a distance of 1000 meters away from any natural or artificial water bodies.*
- 3) The existing marble dumping site should take adequate measures such that the runoff from the marble slurry dumping site should not be allowed to go into the surface water or any natural or artificial water bodies. SPCB/PCC should monitor the adequate measures made at old dumping sites.*
- 4) The dumping site shall be designed, constructed, operated and maintained at least for a period of 15 years. The base & side of dumping site should be of 01 meter or thicker with compacted clay lining having hydraulic conductivity, to eliminate any seepage. The dumping site should also provide proper water decanting system like decanting well or network of perforated PVC pipes at the bottom of site for collection of slurry water.”*

3. Vide order dated 05.04.2022, the Tribunal constituted a joint Committee comprising CPCB, State PCB and District Magistrate, Srikakulam to undertake visit to the site, interact with the stakeholders and prepare an action plan. A report was required to be furnished to this

Tribunal giving factual position and mentioning the steps taken by the statutory regulators to remedy the situation.

4. Vide order dated 20.07.2022, the Tribunal considered the report of the joint Committee dated 04.06.2022 showing large scale unregulated granite cutting and polishing in violation of environmental norms resulting in degradation of air, water and land and contamination of ground water. The Tribunal accordingly directed remedial action and filing of further action taken report. Operative part of the order is reproduced below:-

“

4. In pursuance of above, the joint Committee has filed its report on 04.06.2022 after undertaking visit to the site. Relevant extracts from the report are:-

“VII Site visit by Joint Committee

1. **Srikakulam District is having about 128 Nos. of Granite Cutting & Polishing units located in Mandals of Kotabommali, Tekkali and Saravakota as clusters. These units are located within the radius of 30 KM from Nimmada junction, Kotabomali Mandal.**

2. **During the site visit, the Committee observed Granite slurry dumped along the approach road of Harischandrapuram village road. On inquiry, it was learnt that the private land owners as well the farmers are utilizing the Granite slurry waste powder for filling low laying area as well for constructions because of cost effective. The Revenue authorities informed that the waste has been dumped with the consent of land owners. The committee observed few dumping's along the irrigational canal of Yethurlapadu Village.**

3. *When the visit was made to the Marble processing clusters, the Granite slurry waste is dumped in the unit premises along the boundary of the premises. The Granite slurry is used only for filling low lying areas.*

VIII Committee interaction with Stakeholders

The committee members interacted with the owners of Granite cutting and polishing and educated the impact of dumping of Granite slurry waste in environment as below:

a. **Studies have revealed that improper dumping of Granite slurry degrades the environment in numerous ways causes adverse impact on ecology, land degradation, visual effect, flooding of water, air pollution. In addition, the porosity of aquifer zones and contaminating the underground water will occur if the waste is deliberately being**

dumped on the water bodies. Reduced porosity & permeability of the topsoil affects the soil fertility and reduces the percolation rate of rain water resulting in reduced rate of ground water recharging.

- b. Random disposal of the Granite fines would also lead to health hazards like respiratory and allergy problems to the people dwelling in the areas. Waste management problem is of critical concern in which waste materials are being used to produce new products in such a way that natural resources are saved.*
- c. Continuous exposure of Granite dust can cause severe respiratory disorders like bronchitis, asthma along with dermal & eye irritation in labors and local population. Deposition of particulate/fugitive dust on roads causes emission of particulate matter due to vehicular activities and strong wind currents.*
- d. Disposing the slurry waste near to water bodies, road side areas can deteriorate the surface & ground water quality by increasing turbidity, suspended solids, calcium and magnesium hardness.*

The Granite processing units Association Secretary informed that several requests were made to District Collector, Srikakulam for allocation of land for dumping of slurry/sludge in designated place, so that it can be utilized for various purposes such as road construction, brick manufacturing etc. At present the units are stacking the waste within their premises or dumping in low lying areas. No bulk consumer like NHAI is coming forward for lifting the waste as it is not available at single source. The committee instructed the association members to submit the proposed action plan for safe and scientific disposal of slurry/sludge.

IX Present consent practices of slurry disposal and utilization

*As per CPCB revised classification of industrial sectors, cutting, sizing and polishing of Granite stone have been categorized under **Green Category**. The Government of Andhra Pradesh simplified the procedure from issue of regular consents to issue acknowledgment for non-polluting Small Scale Industries (SSI). As per the orders of Govt. of AP, the Andhra Pradesh Pollution Control Board (APPCB) is issuing one time Acknowledgement to the SSI which would serve the purpose of consent of the Board.*

APPCB, Regional Office, Srikakulam issued acknowledgments to Granite cutting and Polishing units under Green Category with a condition that “the industry shall collect solid waste i.e., sludge and cutting edges properly and it shall be disposed in

the dump yard earmarked within the premises under any circumstances it should not be disposed in any unauthorized areas”

*The copy of the consent issued to the unit is attached as **Annexure II**. As per the consent conditions, the units are not complying with the conditions and are disposing waste in low lying and unauthorized areas. The Granite slurry is not utilized in producing any valuable products but being dumped along the road side for filling of low laying areas to utilize the lands for constructions.*

X. Action taken by APPCB

*APPCB received a complaint by Sri S. Srinivasulu, Advocate and other residence of Harischandrapuram Village, KotabommaliMandal, Srikakulam District regarding improper dumping of Marble slurry and depositing at survey no.11 of Harischandrapuram Village from the Marble polish units located at Nimmada, Peddabammidi, YetturallapaduMandals. The complainant also represented that these units are being operated in violation of certain provisions of the Air, Water and Environmental Acts. Copy of the complaint is placed as **Annexure III**.*

*APPCB, Regional Office, Srikakulam inspected these units and issued notices on 18.01.2022 to all Granite Cutting and Polishing Units located in Srikakulam District for disposal of slurry/sludge indiscriminately along the NH-16 and causing dust nuisance and to take immediate remedial measures. The copy of the notices area enclosed as **Annexure IV**. However till now APPCB has not received any reply for the notices by the units.*

XI Remedial measures suggested by the Joint Committee

1. Due to non-availability of designated site for dumping the Granite slurry, the units are disposing the waste in low lying areas, along road sides and in unauthorized lands causing air and other environmental issues. Government of AP or the District Administration, Srikakulam shall allocate suitable site within the existing Granite processing units or located at isolated place preferable 1km away from any notified human habitation.

2. After identification of designated site for disposal of Granite slurry, the Marble association shall construct the dumping yard with sufficient depth and for fulfilling 5 years dumping requirements. The yard shall be provided with decanter wells, so that decanted water is recycled in gang saw units.

3. The Marble/Granite slurry can be used in road pavements & National Highway Authority of India (NHAI) road constructions replacing soils, Granite slurry can be utilized as low cost binder for non-load bearing structures as per Public

Work Department (PWD). It can be also utilized in brick manufacturing, in artifacts manufacturing, as a coarse aggregate in concrete for the civil constructions and building materials.

4. **The inorganic & non-hazardous Granite slurry can be utilized in above activities after been examined in detail in consultation with the various organization/reputed institutes/industries like Cement manufacturer, NCBM, CRRI, CDOS etc. for evaluating most techno-economical & viable solution/option of slurry disposal.**

5. **The broken Marble slabs from the cutting process shall be collected, stored and utilized by the Marble chip & tiling units.**

6. **Granite association shall engage any reputed institutions such as IITs, NITs, etc. to explore the possibility of utilizing the Granite slurry and device an action plan.**

7. **Granite association shall educate and create awareness in public to utilize Granite/Marble waste for filling the low lying areas duly covering with soil to avoid spreading in the surroundings and the units should not dump the waste along the road side as well in agricultural fields un-authorizedly.”**

5. **From the above, it is seen that there are large number of unregulated granite cutting and polishing units operating in violation of norms. Defence of simplifying procedure cannot be valid at the cost of the environment and public health. Simplicity of procedure can be appreciated if it does not harm the public interest and not otherwise. In the name of simplification, the State is unfortunately avoiding its duty to protect environment and to protect public health. It is clear that slurry is being dumped along the approach road and also on the private land without consent of its owners. This is resulting in degradation of environment by air, water and land pollution. Groundwater is also getting contaminated. Top soil and its fertility are affected. It is causing health hazards like respiratory and other problems. Action taken by the State PCB is merely issuance of notice dated 18.01.2022. Since the violations are serious and adversely affect the environment and public health, emergent remedial action is needed to prevent continuing violations and making violators accountable for past violations, following due process. There is need to assess realistic compensation on polluter pays principle which is to be used for restoration measures. The polluting activities in violation of Air, Water and EP Acts need to be regulated by appropriate mechanism. Mere giving label of ‘Green’ cannot be licence to damage environment. It is only a procedural aspect not obviating need against violation of environmental norms such as causing pollution. Let remedial action be now taken in a mission mode so as to forthwith stop**

the polluting activities till mitigation measures are adopted and also recover compensation. There has to be defined action plan for restoring the area in question and a designated and well-engineered designed utilization and disposal of slurry.

6. *The Chairman and Member Secretary of State PCB and District Magistrate, Srikakulam may remain present in person by video conferencing with their action taken reports on the next date. The State PCB may also put the concerned units to notice of these proceedings for their response, if any, before the next date.”*

5. In pursuance of above, further report has been filed on 09.09.2022 mentioning the remedial action taken including fixing of accountability for past violations by way of environmental compensation. The extracts from the report are reproduced below:-

“1. Remedial action taken to stop the pollution activities:

- i. *The APPCB officials circulated the Hon’ble NGT orders to all the granite cutting & polishing units for their response. The acknowledgement is enclosed as **Annexure – II.***
- ii. *The District Collector, Srikakulam convened a meeting with all the representatives of the granite cutting & polishing units on 02.08.2022 along with the respective District officials. During the meeting, the District Collector appraised the Hon’ble NGT orders to the representatives of granite cutting & polishing in Srikakulam District.*
- iii. *The District Collector, Srikakulam informed that some of the granite cutting & polishing units located in Kotabommali cluster have dumped their waste on agricultural land near Harischandrapuram, adjacent to NH-16 and the Hon’ble NGT passed orders to take immediate corrective measures. The District Collector further informed that as it could not be identified which units have dumped the sludge, all the 81 units located in the Kotabommali cluster were made accountable for the violation and directed as follows:*
 - a) *All the units shall lift the sludge being dumped along the roads, agricultural lands and public places within 15 days. If the units fail to comply, as per CPCB/MoEF guidelines, fines will be imposed, i.e., 1.0% of total project cost and 0.25% of industry turnover. A closure order shall be served to the erring units.*
 - b) *All the units have to provide engineered land fill site as per the CPCB norms within their premises.*
- iv. *The District Collector instructed the Deputy Director, Mines & Geology Department, Srikakulam to identify the abandoned quarries and report immediately within 10 days. A Committee was constituted with the Revenue, Police, PCB, Mines &*

Geology, R & B, and PR Departments at district level to verify the compliance. Copy of the minutes of the review meeting is enclosed as **Annexure-III**.

- v. After the meeting, APPCB issued Show Cause notice cum directions to all 128 Granite Cutting & Polishing units on 05.08.2022 to comply with the following measures with 15days:
- a. The units shall lift the sludge being dumped along the roads, agricultural lands and public places immediately. If the units fail to comply, as per CPCB/MoEF guidelines fines will be imposed as 1.0% of total project cost plus 0.25% of the total turnover industry and even closure of units also.
 - b. The unit shall provide engineered land fill site as per the CPCB norms within their premises.

Copy of the show cause notice is enclosed as **Annexure - IV**.

- vi. The Granite cutting and polishing units and their association have submitted a reply to the show cause notice stating that they have lifted the sludge being dumped near Harischandrapuram and restoration of the site has been completed. It was also stated that they are constructing engineered landfill sites within their premises for the storage of sludge. Further stated that they have requested the Assistant Director of Mines and Geology, Srikakulam to identify abandoned mines to utilize the same for land filling. The association stated that they have instructed all the units not to dispose sludge outside the unit premises and they are in the process of identifying private lands to use for landfill and requested 36 months time. Copy of the reply is enclosed as **Annexure-V**.
- vii. The Committee constituted by the District Collector, Srikakulam District visited all the Granite cutting and polishing units on 25.08.2022 for verification of compliance. The Committee also visited the Harischandrapuram area where the sludge was dumped earlier by the granite units. During the visit the following officers and representatives from granite cutting & polishing units association were present.

S. No.	Committee Members
1.	Sri. H.V.Jayaram Revenue Divisional Officer, Tekkali Division, Srikakulam District.
2.	Sri D.Phanibhushan Reddy, Deputy Director of Mines & Geology, Mines & Geology Department, Tekkali, Srikakulam District.

3.	P.Satyanarayana, Executive Engineer, R&B Department, Tekkali, Srikakulam District.
4.	Sri S.Shankar Naik, Environmental Engineer, A.P. Pollution Control Board, Srikakulam.
5.	Sri M Srinivasa Kumar, Executive Engineer, Panchayati Raj Department, Tekkali, Srikakulam District.
6.	Sri. M Balaji Naik, Assistant Director of Mines & Geology, Srikakulam.
7.	Sri Shaik Kadharbhasha, Sub Inspector, Kotabommali, Srikakulam District.
Representatives from Granite cutting and polishing association	
8.	Sri. Gopi Chowdhari, President, Granite cutting and Polishing units association.
9.	Sri. Shiva Narayan, Treasurer, Granite cutting and Polishing units association.
10.	Sri. Anil Joshi, Member, Granite cutting and Polishing units association.

viii. **Committee observations:**

- a. *The Committee noted that Srikakulam District is having 128 Granite Cutting & Polishing units located as clusters in the mandals of i) Kotabommali, ii) Meliaputti, iii) Tekkali, iv) Nandigama, v) Saravakota, vi) Ponduru and vii) Etcherla Out of these, 81 units are located in Kotabommali area. The details are as follows:*

S.No.	Name of the Mandal	No. of Units
1	Kotabommali	81
2	Meliaputti	18
3	Tekkali	7
4	Nandigama	7
5	Saravakota	6
6	Ponduru	4
7	Etcherla	5
Total		128

- b. *The Association of granite cutting and polishing units has lifted the waste being dumped along the agricultural land near Harischandrapuram railwaygate and Yethurlapadu (V) of Kotabommali Mandal, Srikakulam District. About 100 to 125 tons of sludge has been lifted and stacked the material within the storage areas of the units duly providing HDPE lining to avoid ground water*

contamination as per the directions of the District Collector, Srikakulam and directions issued by APPCB

- c. The Committee observed that no granite waste stored/stacked near Harischandrapuram railway gate and other areas also. The earlier dump was removed and the area was restored.
- d. The Committee inspected all the stretches of granite cutting and polishing units to verify any illegal dumps. It was observed that no fresh dumps were observed along the NH-16 and other roads.
- e. The Committee also observed that all the units have provided HDPE lined pits within their premises for storing the sludge to avoid ground water table contamination.

ix. Monitoring by APPCB:

a. Air Pollution:

The APPCB conducted Ambient Air Quality Monitoring in 4 locations at Kotabommali, Meliputti, Saravakota and Etcherla to assess the air quality. No dust emissions observed from the granite cutting and polishing activity as the water is used as a media for cutting the slabs, the source of air pollution is the movement of vehicles in the areas. Ambient Air Quality monitoring conducted at 4 locations to monitor the particulate matter - PM_{10} to assess the ambient air quality. As per the analysis reports, the concentrations of PM_{10} are within the standards of National Ambient Air Quality. Report Enclosed as **Annexure-VI**.

b. Water Pollution:

The Granite cutting & polishing units are using water as coolant in the cutting, polishing and edge-cutting machine. Water based slurry is generated from the cutting, polishing section. The water along with slurry is sent to sedimentation tanks for settling the solids. After settling solids in the sedimentation tanks, the supernatant water is recycled in the cutting section and fresh water is used for polishing machines. APPCB officials physically inspected all the 128 Granite Cutting and Polishing units and observed that they have provided sedimentation tanks and recycling the water. No discharge of wastewater observed from the units

c. Ground water Quality in the Village:

APPCB officials also collected the ground water samples from 4 locations of Kotabommali, Meliputti, Saravakota, Etcherla & from the industry premises to assess the ground water quality. From the analysis results, it is noted that there is no abnormalities in ground water quality. Analysis reports are enclosed as **Annexure-VII**.

d. Solid Waste Generation & Mode of disposal:

Water based slurry is generated in the cutting and polishing sections. **The slurry is sent to Sedimentation tanks for settling the solids. The settled solids are periodically removed from the sedimentation tanks. The units have provided HDPE lined pits for storage of slurry/ sludge within their premises.**

2. Making violators accountable for past violation and recovering of compensation:

- i. *The Committee constituted by District Collector, Srikakulam District discussed for levying Environmental Compensation as per the Hon'ble NGT orders to make the violators accountable for past violations. The Committee observed that **the 81 units located in Kotabommali area are the violators and the other 47 units located in the district are stacking their waste within their premises. The Committee recommended to levy Environmental Compensation on all the 81 units located at Kotabommali area at the rate of 1.0% of total project cost of each unit initially.***
- ii. *There are 81 Nos. of granite cutting and polishing MSME units in Kotabommali area out of which 77 units are in operation and 04 units were closed. The project cost of the units varies from Rs. 0.50 Cr to 5.7 Cr. Based on their project cost, the individual units have to pay compensation. The APPCB and the Committee assessed the total compensation to be paid as **Rs.1,35,29,000/-**. The APPCB issued directions to all 77 units vide order dt.05.09.2022 to pay the compensation within 15days. The details of compensation levied against the units are furnished in **Annexure-VIII**.*

3. Defined action plan for restoring the area in question and a designated and well-engineered designed utilization and disposal of slurry.

- iii. *The Deputy Director, Mines & Geology Department, Srikakulam has identified abandoned gravel pit at Sy.No.177, Birlangi hill, Sri Jagannadhapuram (V), Kotabommali (M), Srikakulam District, which is **suitable for dumping granite slurry and it is close proximity to granite cutting and polishing units. This site will be allocated to the association for disposal of granite slurry to avoid dumping at any abandoned land, near to water bodies, road sides. The dump site shall be scientifically developed, constructed and maintained as per the CPCB guidelines.** The RDO, Tekkali, AD, Mines & Geology Department, Tekkali informed that the extent of area shall be verified and the detailed report submitted to the District Collector. Letter of Dy. Director of Mines & Geology Department, Srikakulam dt.01.09.2022 is **Annexure -IX**.*

iv. The APPCB officials during the visit to the granite cutting & polishing units located in the district, given strict instructions to all the units that if any such repetition of dumping of sludge and any activities in violation of Air, Water and Environment (Protection) Acts observed, stringent action will be initiated against the units including closure of their operations. The APPCB will regularly monitor the granite cutting and polishing units in Srikakulam District.”

6. We have perused the report and heard the Collector and Member Secretary, State PCB who are present by video conferencing and further considered the matter.

7. It is seen that the magnitude of violations is enormous and remedial action inadequate. Mere storing of slurry waste is not beneficial to environment when its commercial use is well known. In this regard, one may note research paper published by ‘Global Research Analysis’ titled ‘A Study of Utilization Aspect of Stone Waste in Indian Context.’¹ Further, slurry waste in Kishangarh, District Ajmer, Rajasthan is transported to Morbi, Gujarat for manufacturing of bricks, tiles and ceramic products. It is also used in Cement industries, distemper making and putti cement. It may be ascertained whether it can be used for animals and poultry feeds. National Council for Cement and Building Materials, Hyderabad also deals with the issue of utilising the slurry in different areas of construction. The Collector has agreed to consider the best practices for handling marble slurry in consultation with the concerned experts/institutions/ stakeholders, including business models best suited consistent with environmental concerns.

¹ Volume : 2 | Issue : 1 | Jan 2013 • ISSN No 2277 – 8160 by Mamta B. Rajgor: Student of final year, M.E. C E & M, B.V.M. engineering college, Vallabh Vidyanagar and Jayeshkumar Pitroda: Assistant Professor & Research Scholar, Civil Engg Department, B.V.M. Engineering College, Vallabh Vidyanagar – Gujarat – India

8. Compensation levied is only 1% of the total project cost without considering the extent of turnover which needs to be considered having regard to continuing violation for a long period and damage to the environment in view of observations of the Hon'ble Supreme Court *inter alia* in *M.C Mehta & Anr v. Union of India*², *Sterlite Industries (India) Ltd. v. Union of India*³, *Goel Ganga Developers India Pvt. Ltd. v. UoI*⁴. Enhanced compensation may be assessed and recovered as per law and utilised for restoration of environment as per District Environment Plan.

9. Further, the State PCB may ensure that no illegal extraction of ground water takes place and industries are consented on zero liquid discharge standard and having captive or combined slurry utilization plan.

10. CPCB may issue guidelines for utilization of marble slurry and to prevent its unregulated dumping on land or low-lying areas or otherwise.

11. Action taken reports be filed by the District Collector, AP PCB and CPCB with the Registrar General of this Tribunal by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF. If necessary, the Registrar General may place the matter for further consideration before the Tribunal.

Subject to above, the Application is disposed of.

A copy of this order be forwarded to District Collector, Srikakulam, State PCB and CPCB for compliance.

Adarsh Kumar Goel, CP

² (1987) 1 SCC 395

³ (2013) 4 SCC 575

⁴ (2018) 18 SCC 257

Sudhir Agarwal, JM

Prof. A. Senthil Vel, EM

Dr. Afroz Ahmad, EM

September 28, 2022
Original Application No.164/2022
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