

Indian Council for Enviro-Legal Action

Vs

Union of India and others

Writ Petn. (C) No. 967 of 1989 with W. P. (C) Nos. 94 of 1990, 824 of 1993 and 76 of 1994

(B. P. Jeevan Reddy, B. N. Kirpal JJ)

13.02.1996

JUDGEMENT

B. P. JEEVAN REDDY J.

1. This writ petition filed by an environmentalist organisation brings to light the woes of people living in the vicinity of chemical industrial plants in India. It highlights the disregard, nay, contempt for law and lawful authorities on the part of some among the emerging breed of entrepreneurs, taking advantage, as they do, of the country's need for industrialization and export earnings. Pursuits of profit has absolutely drained them of any feeling for fellow human beings for that matter, for anything else. And the law seems to have been helpless. Systemic defects? It is such instances which have led many people in this country to believe that disregard of law pays and that the consequences of such disregard will never be visited upon them - particularly, if they are men with means. Strong words indeed - but nothing less would reflect the deep sense of hurt, the hearing of this case has instilled in us. The facts of the case will bear out these opening remarks.

2. Bichhri is a small village in Udaipur district of Rajasthan. To its north is a major industrial establishment. Hindustan Zinc Limited, a public sector concern. That did not affect Bichhri. Its woes began somewhere in 1987 when the fourth respondent herein. Hindustan Agro Chemicals Limited started producing certain chemicals like Oleum (said to be the concentrated form of Sulphuric acid) and Single Super Phosphate. The real calamity occurred when a sister concern, Silver Chemicals (Respondents No. 5), commenced production of 'H' acid in a plant located within the same complex. 'H' acid was meant for export exclusively. Its manufacture gives rise to enormous quantities of highly toxic effluents - in particular, iron-based and gypsum based sludge - which if not properly treated, pose grave threat to mother Earth. It poisons the earth, the water and everything that comes in contact with it. Jyoti Chemicals (Respondent No. 8) is another unit established to produce 'H' acid, besides some other chemicals. Respondents Nos. 6 and 7 were established to produce fertilizers and a few other products.

3. All the units/factories of Respondents Nos. 4 to 8 are situated in the same complex and are controlled by the same group of individuals. All the units are what may be called "chemical industries". The complex is located within the limits of Bichhri village.

4. Because of the pernicious wastes emerging from the production of 'H' acid, its manufacture is stated to have been banned in the western countries. But the need is catered to by the industries like the Silver Chemicals and Jyoti Chemicals in this part of the world. (A few other units producing 'H' acid have been established in Gujarat, as would be evident from the decision of the Gujarat High Court in Pravinbhai Jashbhai v. State of Gujarat, (195) 2 Guj LR 1210, a decision rendered by one of us, B. N. Kirpal, J. as the Chief Justice of that Court, J. Silver Chemicals is stated to have produced 375 MT of 'H' acid. The quantity of 'H' acid produced by Jyoti Chemicals is not known. It says that it produced only 20 MT., as trial production, and no more. Whatever quantity these two units may have produced, it has given birth to about 2400-2500 MT of highly toxic sludge (iron--based sludge and gypsum based sludge) besides other pollutants. Since the toxic untreated waste waters were allowed to flow out freely and because the untreated toxic sludge was thrown in the open in and around the complex, the toxic substances have percolated deep into the bowels of the earth polluting the aquifers and the sub-terranean supply of water. The water in the wells and the stream has turned dark and dirty rendering it unfit for human consumption. It has become unfit for cattle to drink and for irrigating the land. The soil has become polluted rendering it unfit for cultivation, the main stay of the villagers. The resulting misery to the villagers needs to emphasis. It spread disease, death and disaster in the village and the surrounding areas. This sudden degradation of earth and water had an echo in Parliament too. An Hannibal Minister said, action was being taken, but nothing meaningful was done on the spot. The villagers then rose in virtual revolt leading to the imposition of Section 144, Cr. P.C. by the District Magistrate in the area and the closure of Silver Chemicals in January, 1989. It is averred by the respondents that both the units, Silver Chemicals and Jyoti Chemicals have stopped manufacturing 'H' acid since January, 1989 and are closed. We may assume it to be so. Yet the consequences of their action remain - the sludge, the long-lasting damage to earth, to underground water, to human beings, to cattle and the village economy. It is with these consequences that we are to content with in this writ petition.

5. The present social action litigation was initiated in August, 1989 complaining precisely to the above situation and requesting for appropriate remedial action. To the writ petition, the petitioner enclosed a number of photographs illustrating the enormous damage done to water, cattle, plants and to the area in general. A good amount of technical data and other material was also produced supporting the averments in the petition.

COUNTER-AFFIDAVITS OF THE RESPONDENTS :

6. On notice being given, counter-affidavits have been filed by the Government of India, Government of Rajasthan, Rajasthan Pollution Control Board (R.P.C.B.) and Respondents Nos. 4 to 8. Since the earliest counter-affidavit in point of time is that of R.P.C.BB, we shall refer to it in the first instance. It was filed on October 26, 1989. The following are the averments :

(a) Re : Hindustan Agro Chemicals Limited (R-4) : The unit obtain 'No-Objection Certificate' from the P.C.B. for manufacturing sulphuric acid and alumina sulphate. The Board granted clearance subject to certain

conditions. Later 'No-Objection Certificate' was granted under the Water (Prevention and Control of Pollution) Act. 1974 (Water Act) and Air (Prevention and Control of Pollution) Act. 1981 (Air Act), again subject to certain conditions. However, this unit changed its product without clearance from the Board. Instead of sulphuric acid, it started manufacturing Oleum and Single Super Phosphate (S.S.P). Accordingly, consent was refused to the unit on February 16, 1987. Directions were also issued to close down the unit.

(b) Re : Silver Chemicals (R-5) : This unit was promoted by the fourth respondent without obtaining 'No-objection Certificate' from the Board for the manufacture of 'H' acid. The waste water generated from the manufacture of 'H' acid is highly acidic and contains very high concentration of dissolved solids along with several dangerous pollutants. This unit was commissioned in February, 1988 without obtaining the prior consent of the Board and accordingly notice of closure was served on April 30, 1988. On May 12, 1988, the unit applied for consent under Water and Air Act which was refused. The Government was requested to issue directions for cutting of the electricity and water to this unit but no action was taken by the Government. The unit was found closed on the date of inspection, viz., October 2, 1989.

(c) Re : Rajasthan Multi Fertilizers (R-6) : This unit was installed without obtaining prior 'No-Objection Certificate' from the Board and without even applying for consent under Water and Air Acts. Notice was served on this unit on February 20, 1989. In reply where to, the Board was informed that the unit was closed since last three years and that electricity has also been cut off since February 12, 1988.

(d) Re : Phosphates India (R-7) : This unit was also established without obtaining prior 'No-Objection Certificate' from the Board nor did it apply for consent under the Water and Air Acts. When notice dated February 20, 1989 was served upon this unit, the Management replied that this unit was closed for a long time.

(e) Re : Jyoti Chemicals (R-8) : This unit applied for 'No-Objection Certificates' for producing ferric alum. 'No-Objection Certificate' was withdrawn on May 30, 1988 on account of non-compliance with its conditions. The consent applied for under Water and Air Acts by this unit was also refused. Subsequently, on February 9, 1989, the unit applied for fresh consent for manufacturing 'H' acid. The consent was refused on May 30, 1989. The Board has been keeping an eye upon this unit to ensure that it does not start the manufacture of 'H' acid. On October 2, 1989, when the unit was inspected, it was found closed.

7. The Board submitted further [in its counter-affidavit] that the sludge lying in the open in the premises of respondents Nos. 4 to 8 ought to be disposed of in accordance with the provisions contained in the Hazardous Wastes (Management and Handling) Rules, 1989. According to the Board, the responsibility for creating the said hazardous situation was squarely that of Respondents Nos. 4 to 8. The Board enclosed several documents to its counter in support of the averments contained therein.

8. The Government of Rajasthan filed its counter-affidavit on January 20, 1990. It made a curious statement in Para 3 to the following effect : "(T)hat the State Government is now aware of the pollution of underground water being caused by liquid effluents from the firms arrayed as respondents Nos. 4 to 8 in the writ petition. Therefore, the State Government has initiated action through the Pollution Control Board to check further spread of pollution." The State Government stated that the water in certain wells in Bichri village and some other surrounding villages has become unfit for drinking by human beings and cattle, though in some other wells, the water remains unaffected.

9. The Ministry of Environment and Forests, Government of India filed its counter on February 8, 1990. In their counter, the Government of India stated that Silver Chemicals was merely granted a Letter of Intent but it never applied for conversion of the Letter of Intent into industrial license. Commencing production before obtaining industrial licence is an offence under Industries [Development and Regulation] Act, 1951. So far as Jyoti Chemicals is concerned, it is stated that it has not approached the Government at any time even for a Letter of Intent. The Government of India stated that in June, 1989, a study of the situation in Bichri village and some other surrounding villages was conducted by the Centre for Science and Environment. A copy of their report is enclosed to the counter. The report states the consequences emanating from the production of 'H' acid and the manner in which the resulting wastes were dealt with by respondents Nos. 4 to 8 thus :

"The effluents are very difficult to treat as many of the pollutants present are refractory in nature. Setting up such highly polluting industry in a critical ground water area was essentially ill-conceived. The effluents seriously polluted the nearby drain and overflowed into Udaisagar main canal, severely corroding its cement-concrete lined bed and banks. The polluted waters also seriously degraded some agricultural land and damaged standing crops. On being ordered to contain the effluents, the industry installed an unlined holding pond within its premises and resorted to spraying the effluent on the nearby hill-slope. This only resulted in extensive seepage and percolation of the effluents into ground water and their spread down the aquifer. Currently about 60 wells appear to have been significantly polluted but every week a few new wells, down the aquifer start showing signs of pollution. This has created serious problems for water supply for domestic purposes, cattle watering, crop irrigation and other beneficial uses, and it has also caused human illness and even death, degradation of land and damage to fruit, trees and other vegetation. There are serious apprehensions that the pollution and its harmful effects will spread further after the onset of the monsoon as the water percolating from

the higher parts of the basin moves down carrying the pollutants lying on the slopes in the holding pond and those already underground."

10. Each of the respondents Nos. 4 to 8 filed separate counter-affidavits. All the affidavits filed on behalf of these respondents are sworn-to by Lt. Gen. M. L. Yadava, who described himself as the President of each of these units. In the counter-affidavit filed on behalf of the fourth respondent, it is stated that it is in no way responsible for the situation complained of. It is engaged in the manufacture of sulphuric acid and had commenced its operations on January 6, 1987. It has been granted 'No-Objection Certificates' from time to time. The consent obtained from R.P.C.B. is valid up to August 15, 1988. Application for extension of consent has already been filed. This counter-affidavit was filed on January 18, 1990.

11. In the counter-affidavit filed on behalf of the fifth respondent [Silver Chemicals], it is stated that the manufacture of 'H' acid which was commenced in February, 1988 has been completely stopped after January, 1989. The respondent is fully conscious of the need to conserve and protect environment and is prepared fully to cooperate in that behalf. It is ready to comply with any stipulations or directions that may be made for the purpose. It, however, submitted that the real culprit is Hindustan Zinc Limited. The Archeological Department of the Government of Rajasthan has issued environmental clearance for its unit [rather surprising statement]. 'No-Objection Certificate' had also been issued by the Executive Engineer [Irrigation], Udaipur Division and the Wild Life Warden. So far as the requirement of 'consent' under Water and Air Acts is concerned, it merely stated that it had applied for it. Its closure in January, 1989 was on account of promulgation of an order under Section 144 Cr. P.C. by the District Magistrate in view of wide-spread agitation by the villagers against its functioning.

12. In the counter-affidavit filed on behalf of the sixth respondent [Rajasthan Multi Fertilizers], it is stated that it commenced production on March 14, 1982 and closed down in December, 1985. Electrical connection to it was disconnected on February 13, 1988. It was submitted that since it is a small-scale industry, no consent was asked for from anyone. It denied that it was causing any pollution, either ground, air or water.

13. In the counter-affidavit filed on behalf of the seventh respondent [Phosphates India], it is stated that this unit commenced production on May, 15, 1988 but was closed on and with effect from September 1, 1988 for want of support from the Central Government in the form of subsidies. It submitted that it has merged with the fourth respondent in 1987-88.

14. In the counter-affidavit filed on behalf of the eighth respondent [Jyoti Chemicals], it is stated that it has no electrical connection, that it had commenced production in April 1987 and closed down completely in January, 1989. It is stated that the unit produced 'H' acid to an extent of 20 mt. as a trial measure for one month with the permission of the Industries Department. It is no longer manufacturing 'H' acid and, therefore, is not responsible for causing any pollution. It is further submitted that it is a small-scale industry and was registered with the District Industry Centre, Udaipur for the

manufacture of ferric alum and 'H' acid. It began its operation simultaneously with the fifth respondent. Silver Chemicals, and several of the clearances are common to both, as both of them are located together. The trial production of 'H' acid, it is stated, took place in January, 1987.

15. Hindustan Zinc Limited was impleaded as the ninth respondent at the instance of respondents Nos. 4 to 8. It has filed a counter-affidavit denying that it is responsible in any manner for causing any pollution in Bichri village or the surrounding areas. According to it, its plants are situated downstream, towards north of Bichri village. We do not think it necessary to refer to this affidavit in any detail inasmuch as we are not concerned. in this writ petition, with the pollution, if any, caused by the ninth respondent in other villages but only with the pollution caused by respondents Nos. 4 to 8 in Bichri or surrounding villages.

ORDER PASSED AND STEPS TAKEN DURING THE PERIOD 1989-1992.

16. The first considered Order made, after hearing the parties, by this Court is of December 11-1989. Under this Order, the Court requested the National Environmental Engineering Research Institute [NEERI] to study the situation in and around Bichri village and submit their report "as to the choice and scale of the available remedial alternatives". NEERI was requested to suggest both short-term and long-term measures required to combat the hazard already caused. Directions were also made for supply of drinking water to affected villages by the State of Rajasthan. The R. P. C. B. was directed to make available to the Court the report it had prepared concerning the situation in Bichri village.

17. On the next date of hearing, i.e. March 5, 1990, the Court took note of the statements made on behalf of respondents Nos. 4 to 8 that they have completely stopped the manufacture of 'H' acid in their plants and that they did not propose to resume its manufacture. The court also took note of the petitioner's statement that though the manufacture of 'H' acid may have been stopped, a large quantity of highly dangerous effluent waste/sludge has accumulated in the area and that unless properly treated, stored and removed, it constitutes a serious danger to the environment. Directions were given to the R.P.C.B. to arrange for its transportation, treatment and safe storage according to the technically accepted procedures for disposal of chemical wastes of that kind. All reasonable expenses for the said operation were to be borne by respondents Nos. 4 to 8 [hereinafter referred to in this judgment as the "respondents"]. So far as the polluted water in the wells was concerned, the court noted the offer made by the learned counsel for the respondents that they will themselves undertake the de-watering of the wells. The R.P.C.B. was directed to inspect and indicate the number and location of the wells to be de-watered.

18. The matter was next taken up on April 4, 1990. It was brought to the notice of the Court that no meaningful steps were taken for removing the sludge as directed by this Court in its Order dated March, 5, 1990. Since the monsoon was about to set in, which would have further damaged the earth and water in the area, the Court directed the

respondents to immediately remove the sludge from the open spaces where it was lying and store it in safe places to avoid the risk of seepage of toxic substances into the soil during the rainy season. The respondents were directed to complete the task within five weeks therefrom.

19. It is not really necessary to refer to the contents of the various Orders passed in 1990 and 1991, i.e. subsequent to the Order dated April 4, 1990 for the present purposes. Suffice it to say that the respondents did not comply with the direction to store the sludge in safe places. The de-watering of wells did not prove possible. There was good amount of bickering between the respondents on one side and the R.P.C.B. and the Ministry of Environment and Forests on the other. They blamed each other for lack of progress in the matter of removal of sludge. Meanwhile, years rolled by and the hazard continued to rise. NEERI submitted an interim report. [We are, however, not referring to the contents of this interim report inasmuch as we would be referring to the contents of the final report presently after referring to a few more relevant orders of this Court.]

20. On February 17, 1992, this Court passed a fairly elaborate order observing that respondents Nos. 5 to 8 are responsible for discharging the hazardous industrial wastes; that the manufacture of 'H' acid has given rise to huge quantities of iron sludge and gypsum sludge - approximately 2268 MT of gypsum-based sludge and about 189 mt. of iron-based sludge; that while the respondents blamed respondent No. 9 as the main culprit, respondent No. 9 denied any responsibility there for. The immediate concern, said the Court, was the appropriate remedial action. The report of the R.P.C.B. presented a disturbing picture. It stated that the respondents have deliberately spread the hazardous material/sludge all over the place which has only heightened the problem of its removal and that they have failed to carry out the Order of this Court dated April 4, 1990. Accordingly, the Court directed the Ministry of Environment and Forests, Government of India to depute its experts immediately to inspect the area to ascertain the existence and extent of gypsum-based and iron-based sludge, to suggest the handling and disposal procedures and to prescribe a package for its transportation and safe storage. The cost of such storage and transportation was to be recovered from the respondents.

21. Pursuant to the above Order, a team of experts visited the area and submitted a report along with an affidavit dated March 30, 1992. The report presented a highly disturbing picture. It stated that the sludge was found inside a shed and also at four places outside the shed but within the premises of the complex belonging to the respondents. It stated further that sludge has been mixed with soil and at many places it is covered with earth. A good amount of sludge was said to be lying exposed to sun and rain. The report stated : "Above all, the extent of pollution in the ground water seems to be very great and the entire aquifer may be affected due to the pollution caused by the industry. The organic content of the sludge needs to be analysed to assess the percolation property of the contents from the sludge may be very high which may cause the reddish colouration. As the mother liquor produced during the process (with pH-1) was highly acidic in nature and was indiscriminately discharged on land by the unit, it is possible that this might have eroded soil and caused the extensive damage. It is also possible that the organic contents of the mother liquor would have gone into soil with water together with the reddish

colour." The report also suggested the mode of disposal of sludge and measures for re-conditioning the soil.

22. In view of the above report, the Court made an order on April, 6, 1992 for entombing the sludge under the supervision of the officers of the Ministry of Environment and Forests. Government of India. Regarding revamping of the soil, the Court observed that for this purpose, it might become necessary to stop or suspend the operation of all the units of the respondent but that, the Court said, requires to be examined further.

23. The work of entombment of sludge again faced several difficulties. While the respondents blamed the Government officers for the delay, the Government officials blamed the said respondents for non-cooperation. Several Orders were passed by this Court in that behalf and ultimately, the work commenced.

ORDERS PASSED IN 1993, FILING OF WRIT PETITION (C) NO. 76 OF 1994 BY RESPONDENT NO. 4 AND THE ORDERS PASSED THEREON :

24. With a view to find out the connection between the wastes and sludge resulting from the production of 'H' acid and the pollution in the underground water, the Court directed on 20th August, 1993, that samples should be taken of the entombed sludge and also of the water from the affected wells and sent for analysis. Environment experts of the Ministry of Environment and Forests were asked to find out whether the pollution in the well water was on account of the said sludge or not. Accordingly, analysis was conducted and the experts submitted the report on November 1, 1993. Under the heading "Conclusion", the report stated :

"5.0 CONCLUSION

5.1 On the basis of the observation and analysis results, it is concluded beyond doubt that the sludge inside the entombed pit is the contaminated one as evident from the number of parameters analysed.

5.2 The ground water is also contaminated due to discharge of H-acid plant effluent as well as H-acid sludge/contaminated soil leachates as shown in the photographs and also supported by the results. The analysis result revealed good correlation between the colour of well water and H-acid content in it. The analysis results show high degree of impurities in sludge/soil and also in well water which is a clear indication of contamination of soil and groundwater due to disposal of H-acid waste."

The report which is based upon their inspection of the area in September, 1993 revealed many other alarming features. It represents a commentary on the attitude and actions of the respondents. In Para-2, under the heading "Site Observations & Collection of Sludge/Contaminated Soil Samples", the following facts are stated :

"2.1 The Central team, during inspection of the premises of M/s. HACL, observed that H-acid sludge (iron/gypsum) and contaminated soil are still lying at different places, as shown in fig. I. within the industrial premises (Photograph 1) which are the leftovers. The area, where the solar evaporation pond was existing with H-acid sludge dumped here and there was observed to have been levelled with borrowed soil (Photograph 2). It was difficult to ascertain whether the sludge had been removed before filling. However, there are visual evidences of contaminated soil in the area.

2.2. As reported by the Rajasthan Pollution Control Board (RPCB) representatives, about 720 tonnes out of the total contaminated soil and sludge scraped from the sludge dump sites is disposed of in six lined entombed pits covered by lime/flyash mix, brick soling and concrete (Photographs 3 & 4). The remaining scraped sludge and contaminated soil was lying near the entombed pits for want of additional disposal facility. However, during the visit, the left over sludge and contaminated soil could not be traced at site. Inspection of the surrounding area revealed that a huge heap of foreign soil of 5 metre height (Photograph 5) covering a large area, as also indicated in Fig. I was raised on the sloppy ground at the foot hill within the industry premises. The storm water run-off pathway over the area showed indication of the heap. Soil in the area was sampled for analysis.

2.3 M/s. HACL has a number of other industrial units which are operating within the same premises without valid consents from the Rajasthan Pollution Control Board (RPCB). These plants are sulphuric acid (H₂SO₄), fertilizer (SSP) and vegetable oil extraction. The effluent of these units are not properly treated and the untreated effluent particularly from the acid plant is passing through the sludge dump area playing havoc (Photograph 7). The final effluent was collected at the outlet of the factory premises during operation of these units, at the time of groundwater monitoring in September 1993, by the RBPC. Its quality was observed to be highly acidic (PH : 1.08. Conductivity : 37,100 mg/1, 804 : 21,000 mg/1. Fe : 392 mg/1, COD : 167 mg/1) which was also revealed in the earlier visits of the Central teams. However, these units were not in operation during the present visit."

Under Para 4.2.1. the report stated inter alia :

" The sludge samples from the surroundings of the (presently non-existent) solar evaporation and the contaminated soil due to seepage from the newly raised dump site also exhibited very high values of the above mentioned parameters. This revealed that the contaminated soil is buried under the new dump found by the team."

25. So much for the waste disposal by the respondents and their continuing good conduct! To the same effect is the report of the R.P.C.B. which is dated October 30,1993.

26. In view of the aforesaid reports, all of which unanimously point out the consequence of the 'H' acid production, the manner in which the highly corrosive waste water(mother liquor) and the sludge resulting from the production of 'H' acid was disposed of and the continuing discharge of highly toxic effluents by the remaining units even in the year 1993, the authorities(R.P.C.B.) passed orders closing down, in exercise of their powers under Section 33A of the Water Act, the operation of the Sulphuric Acid Plant and the solvent extraction plant including oil refinery of the fourth respondent with immediate effect. Orders were also passed directing disconnection of electricity supply to the said plants. The fourth respondent filed Writ Petition(C)No. 76 of 1994. The main grievance in this writ petition was that without even waiting for the petitioner's [Hindustan Agro Chemicals Limited] reply to this show-cause notices, orders of closure and disconnection of electricity supply were passed and that this was done by the R.P.C.B. with a mala fide intent to cause loss to the industry. It was also submitted that sudden closure of its plants is likely to result in disaster and, may be, an explosion and that this consideration was not taken into account while ordering the closure. In its order dated March 7,1994, this Court found some justification in the contention of the industry that the various counter affidavits filed by the R.P.C.B. are self-contradictory. The Board was directed to adopt a constructive attitude in the matter. By another order dated March 18,1994, the R.P.C.B. was directed to examine the issue of grant of permission to re-start the industry or to permit any interim arrangement in that behalf. On April 8, 1994, a 'consent' order was passed where under the industry was directed to deposit a sum of Rupees sixty thousand with R.P.C.B. before April 11, 1994 and the R.P.C.B. was directed to carry on the construction work of storage tank for storing and retaining ten days effluents from the Sulphuric Acid Plant. The construction of temporary tank was supposed to be an interim measure pending the construction of an E.T.P. on permanent basis. The Order dated April 28, 1994 noted the report of the R.P.C.B. stating that the construction of temporary tank was completed on April 26, 1994 under its supervision. The industry was directed to comply with such other requirements as may be pointed out by R.P.C.B. for prevention and control of pollution and undertake any works required in that behalf forthwith. Thereafter, the matter went in to slumber until October 13, 1995.

NEERI REPORT:

27. At this juncture, it would be appropriate to refer to the report submitted by NEERI on the subject of "Restoration of Environmental quality of the affected area surrounding village Bichhri due to past Waste Disposal Activities". This report was submitted in April, 1994 and it states that it is based upon the study conducted by it during the period November, 1992 to February, 1994. Having regard to its technical competence and reputation as an expert body on the subject, we may be permitted to refer to its report at some length:

28. At page 7, the report mentions the industrial wastes emerging from the manufacture of 'H' acid. It reads:

"Solid wastes generated from H-acid manufacturing process are:

Gypsum sludge produced during the neutralisation of acidic solution with lime after nitration stage (around 6 tonnes/tonne of H-acid manufactured).

Iron sludge produced during the reduction stage (around 0.5 tonnes/tonne of H-acid manufactured).

Gypsum sludge contains mostly calcium sulphate along with sodium salts and organics. Iron sludge constitutes untreated iron powder, besides ferric salts and organics.

It is estimated that, for each tonne of H-acid manufacture, about 20 m³ of highly corrosive waste water was generated as mother liquor, besides the generation of around 2.0 m³ of wash water. The mother liquor is characterised by low pH (around 2.0) and high concentration of total dissolved solids (80-280 g/L). High COD of the waste water (90 g/L) could be attributed to organics formed during various stages of manufacture. These include naphthalene trisulphonic acid, nitro naphthalene sulphonic acid, Koch acid and H-acid, besides several other intermediates."

29. At page 8 and 9, the report describes the manner in which the sludge and other industrial wastes were disposed of by the respondents. It states inter alia:

"The total quantities of wastes water and that of sludge generated were around 8250 m³ and 2440 tonnes respectively for production of 375 tonnes by M/s. Silver Chemicals Ltd. and M/s. Jyoti Chemicals Ltd.....

* Majority of sludge brought back from disposal sites located outside the plants was transferred inside a covered shed.

* The sludge lying in the plant premises was entombed in the underground pit by RPCB as per the direction of Hon'ble Supreme Court. It may be mentioned that only 720 MT of sludge out of the estimated quantity of 2440 MT could be entombed as the capacity of the underground tanks provided by the industry for the purpose was only to that extent.

* Remaining sludge and sludge mixed soil were, however, present in the plant premises as these could not be transferred into underground tanks. It has also been observed that only sludge above the soil was removed from the six sites and transferred to the plant site. Subsurface soil of these sites appears to have been contaminated as the soil has reddish colour akin to that of the sludge.

* A fertilizer plant (single super phosphate), a sulphuric acid plant and oil refining plant were in operation in the same premises where H-acid was

earlier manufactured. The acidic waste water (around pH 1.0) presently generated from these units was flowing over the abandoned dump site. This leaches the sludge mixed soil from the abandoned dump site and the contaminated water flows by gravity towards east and finds its way into a nallah flowing through the compound and conveys the contaminated water to an irrigation canal which originates from udaisagar lake(Pate 1.4)"

(Emphasis added)

30. At page 10, the report mentions the six dump sites outside the 'H' acid plant premises where the sludge was lying in the open. At pages 26 and 27, the report states on the basis of V.E.S. investigations that while certain wells were found contaminated others were not. At page 96, the report states thus:

"DAMAGE TO CROPS AND TREES

The field surveys in contaminated fields in Zones I and II showed that no crops were coming in the fields particularly in low lying areas. On some elevated areas, crops like jowar, maize were growing; however the growth and yield were very poor.

Further it was also observed that even trees like eucalyptus planted in contaminated fields show leaf burning and stunted growth. Many old trees which were badly affected due to contamination are still growing under stress conditions as a result of soil contamination.

The top soils at the old dump sites outside the plant premises are still contaminated and require decontamination before the land is used for other purposes.

It was observed that even after the operation of hauling the sludge back to the industry premises. some sludge mixed soil was still lying in the premises of a primary school (Table 1.1.) which needs decontamination."

31. Chapter-6, the report mentions the remedial measures, Para 6.1. titled "Introduction" states :

"As could be seen from the data reported in Chapter 4 and 5, the ground water and soils within 2 km from the plant have been contaminated. After critically scrutinising the data, it was concluded that there is an urgent need to work out a decontamination strategy for the affected area. This strategy includes the decontamination of the soil, contaminated ground water and abandoned dump sites. This Chapter details the remedial measures that can be considered for implementation to restore the environmental quality of the affected area."

32. The Chapter then sets out the various remedial measures, including land treatment, soil washing, revegetation, control over the flow of the contaminated water to adjoining lands through canals, leaching of soluble salts, design of farm to development Agro forestry and/or forestry plantation with salt tolerant crops/plants and ground water decontamination. Inter alia, the report states :

"The entire contaminated area comprising of 350 ha of contaminated land and six abandoned dump sites outside the industrial premises has been found to be ecologically fragile due to reckless past disposal activities practiced by M/s. Silver Chemicals Ltd. and M/s. Jyoti Chemicals Ltd. Accordingly, it is suggested that the whole of the contaminated area be Hindustan Agrochemicals Ltd., during the monsoon of 1994."

33. Under para 6.3.2. the report suggests "Decontamination Alternatives for Groundwater" including Bioremediation, Degradation of H-Acid by Azotobacter Vinelandi. Isolation of Bacterial Population from H-acid Contaminated Soil and several other methods.

34. Under para 6.4.2. the report mentions the several decontamination alternatives including containment of contaminated soil, surface control, ground water control, leachate collection and treatment, gas migration control and direct waste treatment.

35. At pages 157 and 158, the report mentions the continuing discharge of effluents in an illegal and dangerous manner. It reports :

"It was also observed by NEERI's team during the current study that the industry has not provided adequate effluent treatment facilities and the wastewaters (PH, 1.5) from the existing plants (Sulphuric acid, Fertilizer, and Oil extraction) are being discharged, without treatment, on land within the plant premises. This indiscriminate and wilful disposal activity is further aggravating the contamination problem in the area. Acidic effluent leaches the pollutants from the dumped sludge and the contaminated soil and facilitates their penetration through the ground and thereby increasing the concentration of sulphates and dissolved solids in groundwater. What is most serious is the fact that the industry produced chlorosulfonic acid for a few months during late 1992 which is a hazardous and toxic substance as per MEF Notification titled 'Manufacture' Storage and Import of Hazardous Chemical Rules, 1989 and even floated public shares for the manufacture of this obnoxious chemical. The production was however ceased due to the intervention of the Rajasthan Pollution Control Board in December 1992 as the industry was operating without obtaining site clearance. No objection Certificate(NOC)/Consent from the concerned appropriate regulatory(regulatory) authorities and without providing for any pollution control measures. It is, therefore, essential for M/s. Hindustan Agrochemicals Ltd. to comply with these requirements for carrying out the present industrial activities. The abatement of further

contamination warrants the closure of all industrial operations till an appropriate effluent treatment plant is installed, and certified by RPCB for its functionality in keeping with the provisions of Water Act."

36. The Report adds."

"The Industry management in the past (during 1988-89) has shown scant respect for Pollution Control and Environment Protection Acts. Not only this, the management continues industrial activity producing obnoxious waste waters and dumping the same without any treatment, contaminating land and ground water without any concern for ecology and public health. It is necessary that the provisions of relevant legislations are imposed on the industry to avoid environmental damage and harm to public welfare".

(Emphasis added)

37. We do not think that the above Report requires any emphasis at our hands. It speaks for itself - and it speaks volumes of the 'high regard' the respondent have for law !

38. At Pages 179 onwards, the Report refers to the damage to the crops and the land and to the psychological and mental torture inflicted upon the villagers by the respondents and suggested that the principle of 'Polluter Pays' should be applied in this case inasmuch as "the incident involved deliberate release of untreated acidic process wastewater and negligent handling of waste sludge knowing fully well the implication of such acts." The Report suggests that compensation should be paid under two heads, viz., (a) for the losses due to damage and (b) towards the cost of restoration of environmental quality. It then works out the total cost of restoration of environmental quality at Rs. 3738.5 lakhs - i.e., Rs. 37.385 crores.

39. Para 7.4 states the conclusions flowing from the material in Chapter-6 thus :

"The cost of damage to be disbursed to the affected villagers is estimated at Rs. 342.8 lakhs and remediation of impacted well waters and soil at Rs. 3738.5 lakhs. This cost needs to be borne by the management of the industry in keeping with the Polluter Pays principle and the doctrine of Strict/Absolute liability, as applied to Sri Ram Food and Fertilizers Industry in the case of Oleum leak in 1985."

REPORT OF R.P.C.B. SUBMITTED IN JANUARY, 1996 DURING
THE FINAL HEARING OF THESE MATTERS :

40. When all these matters were posted before the Court on October 13, 1995, we realised that the matter requires to be heard on a priority basis. Having regard to the voluminous data gathered by this Court and the several Orders passed from time to time, the matter was listed for regular hearing. We heard all the parties at length on 10th, 11th, 16th and

17th January, 1996. We have been taken through the voluminous record. Submissions have also been made on the questions of law arising herein.

41. At the end of the first day of regular hearing, we made an Order calling upon the R.P.C.B. to send a team of high officials to the spot and report to us the latest position on the following aspect :

(i) Whether the factories of Silver Chemicals, Rajasthan Multi Fertilizers and Jyoti Chemicals are still working and whether the machinery installed in the said plant is still existing ? (This information was required to check the statement of the respondents that the said units are lying closed since last several years.)

(ii) To report whether the factory or factories of Respondent No. 4. Hindustan Agro-Chemicals Limited, are working and if they are working, what are the products being manufactured by them? The Board was also directed to report whether the seventh respondent, Phosphate India, which was said to have merged with the fourth respondent, is having a separate factory and if so, what is being produced therein?

(iii) The approximate quantity of sludge-whether iron sludge 'or' gypsum sludge' - lying in the area. The report was to indicate what quantity was entombed pursuant to the Orders of this Court and whether any further sludge was lying in area or in the premises of the respondents' complex, its approximate quantity and the time, effort and cost required to remove the same.

(iv) The Board was also to take samples of the water in wells and tanks in the area and have them analysed and tell us whether it is fit for drinking by cattle and/or for irrigation purposes.

42. According, the R.P.C.B. officials visited the site and have filed a Report dated January 16, 1996 along with an affidavit. The Report discloses the following facts :

(1) The two units, Silver Chemicals and Jyoti Chemicals, do not exist now. There is no machinery. A godown and a Ferric Alum plant have been constructed at the site of the said plant. The Ferric Alum plant was not in operation at the time of inspection though plant and machinery for manufacturing it was found installed therein. Certain old stock of Ferric Alum was also found lying within the plant premises.

(2) Hindustan Agro-Chemicals Limited (R-4) has seven industrial plants, viz., Rajasthan Multi Fertilizers (manufacturing Granulated Single Super Phosphate (G.S.S.P.), a Sulphuric Acid Plant, a Chlorosulphonic Acid Plant, Edible Oil Solvent Extraction Plant, Edible Oil refinery and a Ferric Alum Plant (known as M/s. Jyoti Chemicals), all of which are located

within the same premises. All these seven plants were found not operating on the date of inspection by the R.P.C.B officials though in many cases the machinery and the other equipment was in place. So far as the sludge still remaining in the area is concerned, the report stated :

"3. Village Bicchidi and other adjoining areas were visited by the undersigned officials to know whether gypsum and iron sludge is still lying in the aforesaid area. In area adjoining the irrigation canal, sludge mixed with soil were found on an area of about 3000 sq. fit. The area was covered with foreign soil. sample of the sludge mixed soil was collected for the perusal of the Hon'ble Court, Entire premises of M/s. Hindustan Agro Chemicals Ltd. was also inspected and sludge mixed with soil was observed in a large area. It was further observed that fresh soil in the varying depth has been spread over in most of the area. In view of the fact that sludge was mixed with the soil and difficult to separate out of the soil it is very difficult to estimate the exact quantity of the sludge required to be removed. Sample of sludge mixed with soil were collected from different part of this area after serving due notices under Environment Protection Act, 1986."

So far as the water in the wells was concerned, the Report mentioned that they took samples from the wells from Bichhri and other surrounding villages, i.e. from thirty two different locations and that water in sixteen locations was found to "contain colour of varying intensities ranging from very dark brown to light pink which apparently shows that these wells/hand pumps are still polluted."

43. Sri K. N. Bhat, learned counsel for the respondents, however, submitted that the R.P.C.B. officials have throughout been hostile to the respondents and that, therefore, the reports submitted by them should not be acted upon. He also submitted that respondents have had no opportunity to file objections to said report or to produce material to contradict the statements made therein. While taking note of these submissions, we may, however, refer to the letter dated January 13, 1996 written by the fourth respondent to the R.P.C.B. In this letter, the particulars of the stocks remaining in each of its seven plants are mentioned along with the date of the last production in each of those plants. The last dates of production are the following. Sulphuric Acid plant - November 10, 1993, S.S.P. Plant (Phosphate India) - November 11, 1995 G.S.S.P. Plant (Rajasthan Multi Fertilizers) - July 7, 1995, Solvent Extraction Plant and Refinery - December 2, 1993. Jyoti Chemicals - October, 1990 and Chlorosulphonic Acid Plant - September 29, 1995. It is worthy of note that these dates are totally at variance with the dates of closure mentioned in the counter-affidavits filed by these units in 1990-91.

CONTENTIONS OF THE PARTIES.

44. Sri M. C. Mehta, learned counsel appearing for the petitioner, brought to our notice the several Reports, orders and other material on record. He submitted that the abundant

material on record clearly establishes the culpability of the respondents for the devastation in village Bichhri and surrounding area and their responsibility and obligation to properly store the remaining sludge, stop discharge of all untreated effluents by taking necessary measures and defray the total cost required for remedial measures as suggested by NEERI (Rupees forty crores and odd). Learned counsel suggested that in view of the saga of repeated and continuous violation of law and lawful orders on the part of the respondents, they must be closed forthwith. So far as the legal propositions are concerned, the learned counsel relied strongly upon the Constitution Bench decision in *M. C. Mehta v. Union of India (Oleum Gas Leak Case)*, (1987)(1) S.C.C. 395 : (AIR 1987 SC 1086) as well as the recent Order of this Court in *Indian Council for Environmental Action v. Union of India*, (1995 (5) SCALE 578. Learned counsel also invited our attention to quite a few foreign decisions and text books on the subject of environment. Sri Altaf Ahmed, learned Additional Solicitor General appearing for the Union of India, also stressed the need for urgent appropriate directions to mitigate and remedy the situation on the spot in the light of the expert Reports including the one made by the central team of experts.

45. The learned counsel of the State of Rajasthan, Sri Aruneshwar Gupta, expressed the readiness of the State Government to carry out and enforce such orders as this Court may think fit and proper in the circumstances.

46. Sri K. B. Rohtagi, learned counsel for the R.P.C.B., invited our attention to the various Orders passed, action taken, cases instituted and Reports submitted by the Board in this matter. He submitted that until recently the Board had no power to close down any industry for violation of environmental laws and that after conferment of such power, they did pass orders of closure. He denied the allegations of mala fides or hostile intent on the part of the Board towards the respondents. Learned counsel lamented that despite its best efforts, the Board has not yet been successful in eradicating the pollution in the area and hence asked for stringent orders for remedying the appalling conditions in the village due to the acts of the respondents.

47. Sri K. N. Bhat, learned counsel for the respondents, made the following submissions:

(1) The respondents are private corporate bodies. They are not 'State' within the meaning of Article 32 of the Constitution. A writ petition under Article 32 of the Constitution, therefore, does not lie against them.

(2) The R.P.C.B. has been adopting a hostile attitude towards these respondents from the very beginning. The Reports submitted by it or obtained by it are, therefore, suspect. The respondents had no opportunity to test the veracity of the said Reports. If the matter had been fought out in a properly constituted suit, the respondents would have had an opportunity to cross-examine the experts to establish that their Reports are defective and cannot be relied upon.

(3) Long before the respondents came into existence, Hindustan Zinc Limited was already in existence close to Bichhri village and has been discharging toxic untreated effluents in an unregulated manner. This had affected the water in the wells, streams and aquifers. This is borne out by the several Reports made long prior to 1987. Blaming the respondents for the said pollution is incorrect as a fact and unjustified.

(4) The respondents have been co-operating with this Court in all matters and carrying out its directions faithfully. The Report of the R.P.C.B. dated November 13, 1992 shows that the work of entombment of the sludge was almost over. The Report states the entire sludge would be stored in the prescribed manner within the next two days. In view of this report, the subsequent Report of the Central team, R.P.C.B. and NEERI cannot be accepted or relied upon. There are about 70 industries in India manufacturing 'H' Acid. Only the units of the respondents have been picked upon by the Central and State authorities while taking no action against the other units. Even in the matter of disposal of sludge, the directions given for its disposal in the case of other units are not as stringent as have been prescribed in the case of respondents. The decision of the Gujarat High Court in Pravinbhai Jashbhai Patel (195) (2) (Guj) LR 1210) shows that the method of disposal prescribed there is different and less elaborate than the one prescribed in this case.

(5) The Reports submitted by the various so-called expert committees that sludge is still lying around within and outside the respondents' complex and/or that the toxic wastes from the Sulphuric Acid Plant are flowing through and leaching the sludge and creating a highly dangerous situation is untrue and incorrect. The R.P.C.B. itself had constructed a temporary E.T.P. for the Sulphuric Acid Plant pursuant to the Orders of this Court made in Writ Petition(C) No. 76 of 1994. Subsequently, a permanent E.T.P. has also been constructed. There is no question of untreated toxic discharges from this plant leaching with sludge. There is no sludge and there is no toxic discharge from the Sulphuric Acid Plant.

(6) The case put forward by the R.P.C.B. that the respondents' units do not have the requisite permits/consents required by the Water Act, Air Act and the Environment (Protection) Act is again unsustainable in law and incorrect as a fact. The respondents' units were established before the amendment of Section 25 of the Water Act and, therefore, did not require any prior consent for their establishment.

(7) The proper solution to the present problem lies in ordering a comprehensive judicial enquiry by a sitting Judge of the High Court to find out the causes of pollution in this village and also to recommend remedial measures and to estimate the loss suffered by the public as well as by the respondents. While the respondents are prepared to bear the cost

of repairing the damage, if any, caused by them, the R.P.C.B. and other authorities should be made to compensate for the huge losses suffered by the respondents on account of their illegal and obstructionist policy adopted towards them.

(8) The decision in Oleum Gas Leak Case (AIR 1987 SC 1086) has been explained in the opinion of Ranganath Misra, C.J., in the decision in Carbide Corporation v. Union of India (1991) 4 SCC 584:(AIR 1992 SC 248). The law laid down in Oleum Gas Leak Case is at variance with the established legal position in other Commonwealth countries.

48. Sri Bhat suggested that in the larger interest of environment, industry and public, this Court may direct the Government of India to constitute, by proper legislation, environment courts all over the country--which courts alone should be empowered to deal with such cases, to give appropriate directions including orders of closure of industries wherever necessary, to make necessary technical and scientific investigations, to suggest remedial measures and to oversee their implementation. Proceedings by way of a writ in this Court under Article 32 or in the High Court under Article 226, the learned counsel submitted, are not appropriate to deal with such matters, involve as they do several disputed questions of fact and technical issues.

49. Before we proceed to deal with the submission of the learned counsel, it would be appropriate to notice the relevant provisions of law.

RELEVANT STATUTORY PROVISIONS:

50. Article 48A is one of the Directive Principles of State Policy. It says that the State shall endeavour to protect and improve the environment and to safeguard the forests and wildlife of the country. Article 51A sets out the fundamental duties of the citizens. One of them is "(g) to protect and improve the natural environment including forests, lakes, rivers and wild life and to have compassion for living creatures...".

51. The problem of increasing pollution of rivers and streams in the country--- says the Statement of Objects and Reasons appended to the Bill which became the Water (Prevention and Control of Pollution) Act, 1974-- attracted the attention of the State Legislatures and the Parliament. They realised the urgency of ensuring that domestic and industrial effluents are not allowed to be discharged into water courses without adequate treatment and that pollution of rivers and streams was causing damage to the country's economy. A committee was set up in 1962 to draw a draft enactment for prevention of water pollution. The issue was also considered by the Central Council of Local Self-Government in September, 1963. The Council suggested the desirability of having a single enactment for the purpose. A draft Bill was prepared and sent to various States. Several expert committees also made their recommendations meanwhile. Since an enactment on the subject was relatable to Entry 17 read with Entry 6 of List-II in the Seventh Schedule to the Constitution--and, therefore, within the exclusive domain of the States--the State Legislatures of Gujarat, Kerala, Haryana and Mysore passed resolutions

as contemplated by Article 252 of the Constitution enabling the Parliament to make a law on the subject. On that basis, the Parliament enacted the Water (Prevention and Control of Pollution) Act, 1974. (The State of Rajasthan too passed the requisite resolution.) Section 24(1) of the Water Act provides that "subject to the provisions of this section, (a) no person shall knowingly cause or permit any poisonous, noxious or polluting matter determined in accordance with such standards may be laid down by the State Board to enter whether (directly or indirectly) into any stream or well...". Section 25(1), before it was amended by Act 53 of 1988, provided that "(1) subject to the provisions of this section, no person shall, without the previous consent of the State Board, bring into use any new or altered outlet for the discharge of sewage or trade into a stream or well or begin to make any new discharge of sewage or trade effluent into a stream or well." As amended by Act 53 of 1988, Section 25 now reads: "25(1) Subject to the provisions of this section, no person shall without the previous consent of the State Board, (a) establish or take any steps to establish any industry, operation or process or any treatment and disposal system or an extension or an addition thereto, which is likely to discharge sewage or trade effluent into a stream or well or sewer or on land (such discharge being hereafter in this section referred to as 'discharge of sewage'); or (b) bring into use any new or altered outlets for the discharge of sewage or (c) begin to make any new discharge of sewage...". (It is stated that the Rajasthan Assembly passed resolution under Article 252 of the Constitution adopting the said amendment Act vide Gazette Notification dated May 9, 1990) Section 33 empowers the Pollution Control Board to apply to the Court, not inferior to that of a Metropolitan Magistrate or a Judicial Magistrate of the First Class, to restrain any person causing pollution if the said pollution is likely to prejudicially affect water in a stream or a well. Section 33A, which has been introduced by Amendment Act 53 of 1988, empowers the Board to order the closure of any other service to such industry if it finds such a direction necessary for effective implementation of the provisions of the Act. Prior to the said amendment Act, the Pollution Control Board had no such power and the course open to it was to make a recommendation to the Government to pass appropriate orders including closure.

52. The Air (Prevention and Control of Pollution) Act, 1981 contains similar provisions.

53. In the year 1986, Parliament enacted a comprehensive legislation, Environment (Protection) Act. The Act defines "environment" to include "water, air and land and the inter-relationship which exists among and between water, air and land and human beings, other living creatures, plants, micro organism and property." The preamble to the Act recites that the said act was made pursuant to the decisions taken at the United Nations Conference on the Human Environment held at Stockholm in June, 1972 in which India also participated. Section 3 empowers the Central Government "to take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and preventing, controlling and abating environmental pollution". Sub-section (2) elucidates the several powers inhering in Central Government in the matter of protection and promotion of environment. Section 5 empowers the Central Government to issue appropriate directions to any person, officer or authority to further the objects of the enactment. Section 6 confers rule making power upon the Central Government in respect of matters referred to in Section 3, Section 7 says that "no

person carrying on any industry, operation or process shall discharge or emit or permit to be discharged or emitted any environmental pollutant in excess of such standards, as may be prescribed".

54. The Central Government has made the Hazardous Wastes (Management and Handling) Rules, 1989 in exercise of the power conferred upon it by Section 6 of the Environment (Protection) Act prescribing the manner in which the hazardous wastes shall be collected, treated, stored and disposed of.

CONSIDERATION OF THE SUBMISSIONS :

55. Taking up the objections urged by Sri Bhat first, we find it difficult to agree with them. This writ petition is not really for issuance of appropriate writ, order or directions against the respondents but is directed against the Union of India, Government of Rajasthan and R.P.C.B. to compel them to perform their statutory duties enjoined by the Acts aforementioned on the ground that their failure to carry out their statutory duties is seriously undermining the right to life (of the residents of Bichhri and the affected area) guaranteed by Article 21 of the Constitution. If this Court finds that the said authorities have not taken the action required to them by law and that their inaction is jeopardising the right to life of the Citizens of this country or of any section thereof, it is the duty of this Court to intervene. If it is found that the respondents are flouting the provisions of law and the directions and orders issued by the lawful authorities, this Court can certainly make appropriate directions to ensure compliance with law and lawful directions made thereunder. This is a social action litigation on behalf of the villagers of Bichhri whose right to life, as elucidated by this Court in several decisions, is invaded and seriously infringed by the respondents as is established by the various Reports of the experts called for, and filed before, this Court. If an industry is established without obtaining the requisite permission and clearances and if the industry is continued to be run in blatant disregard of law to the detriment of life and liberty of the citizens living in the vicinity, can it be suggested with any modicum of reasonableness that this Court has no power to intervene and protect the fundamental right to life and liberty of the citizens of this country. The answer, in our opinion, is self-evident. We are also not convinced of the plea of Sri Bhat that R.P.C.B. has been adopting a hostile attitude towards his clients throughout and, therefore, its contentions or the Reports prepared by its officers should not be relied upon. If the respondents establish and operate their plants contrary to law, flouting all safety norms provided by law, the R.P.C.B. was bound to act. On that account, it cannot be said to be acting out of animus or adopting a hostile attitude. Repeated and persistent violations call for repeated orders. That is no proof of hostility. Moreover, the Reports of R.P.C.B. officials are fully corroborated and affirmed by the Report of Central team of experts and of NEERI. We are also not prepared to agree with Sri Bhat that since the Report of NEERI was prepared at the instance of R.P.C.B., it is suspect. This criticism is not only unfair but is also uncharitable to the officials of NEERI who have no reason to be inimical to the respondents. If, however, the actions of the respondents invite the concern of the expert and if they depict the correct situation in their Report, they cannot be accused of any bias. Indeed, it is this Court that asked NEERI to suggest remedial measures and it is in compliance with those orders that

NEERI submitted its interim Report and also the final Report. Similarly, the objection of Sri Bhat that the Reports submitted by the NEERI, by the Central team (experts from the Ministry of Environment and Forests, Government of India) and R.P.C.B. cannot be acted upon is equally unacceptable. These Report were called by this Court and several Orders passed on the basis of those Reports. It was never suggested on behalf of Respondents Nos. 4 to 8 that unless they are permitted to cross-examine the experts or the persons who made those Reports, their Reports cannot be acted upon. This objection, urged at this late stage of proceedings--after a lapse of several years -- is wholly unacceptable. The persons who made the said Reports are all experts in their field and under no obligation either to the R.P.C.B. or for that matter to any other person or industry. It is in view of their independence and competence that their Reports were relied upon and made the basis of passing Orders by this Court from time to time.

56. Now coming to the question of alleged pollution by Hindustan Zinc Limited (R-9), it may be that Respondent No. 9 is also responsible for discharging untreated effluents at one or the other point of time but that is not the issue we are concerned with in these writ petitions. These writ petitions are confined to the pollution caused in Bichhri village on account of the activities of the respondent. No Report among the several Reports placed before us in these proceedings says that Hindustan Zinc Limited is responsible for the pollution at Bichhri village. Sri Bhat brought to our notice certain Reports stating that the discharges from Hindustan Zinc Limited were causing pollution in certain villages but they are all down stream, i.e., to the north of Bichhri village and we are not concerned with the pollution in those villages in these proceedings. The bringing in of Hindustan Zinc Limited in these proceedings is, therefore, not relevant. If necessary, the pollution, if any, caused by Hindustan Zinc Limited can be the subject-matter of a separate proceeding.

We may now deal with the contentions of Sri Bhat based upon the affidavit of R.P.C.B. dated November 13,1992 which has been repeatedly and strongly relied upon by the learned counsel in support of his submission that the entire sludge has properly stored by or at the expense of his clients. It is on the basis of this affidavit that Sri Bhat says that the subsequent Reports submitted showing the existence of sludge within at outside their complex should not be accepted or acted upon. Let us turn to the affidavit of R.P.C.B. dated November 13, 1992 and see how far does it support Sri Bhat's contention. It is in Para 2(b) that the sentence, strongly relied upon by Sri Bhat occurs, viz., "remaining work is likely to be completed by 15th November, 1992." For a proper appreciation of the purport of the said sentence, it would be appropriate to read the entire Para 2(b), which is to the following effect:"(b) that all the six tanks have been entombed with brick toppings. Roofing is complete on all tanks which have also been provided with proper outlets for the exit of gases which may form as a result of possible chemical reactions in the sludge mass. The tanks have also be provided with reinforced concrete to prevent drooping of the roof. Remaining work is likely to be completed by 15th November, 1992." We find it difficult to read the said sentence as referring to the storage of the remaining about 1700 MT of sludge. When the storage of 720 MT itself took up all the six tanks provided by the respondent, where was the remaining 1700 tonnes stored? Except relying upon the said sentence repeatedly, Sri Bhat has not been able to tell us where this 1700 MT has

been stored, whether in tanks and if so, who constructed the tanks and when and how were they covered and sealed. He is also not able to tell us on what date the remaining sludge was stored. It is evident that the aforesaid sentence occurring in clause 2(b) refers to the proper sealing and completion of the said tanks wherein 720 MT of sludge was stored. If, in fact, the said 1700 MT has also been entombed, it was not difficult for the respondents to give the particulars of the said storage. We are, therefore, unable to agree with Sri Bhat that the subsequent Reports which repeatedly and uniformly speak of the presence of sludge within and outside the complex of the respondents should not be accepted. It may be recalled that the Report of the team of Central Experts was submitted on November 1, 1993 based upon the inspection made by them in September/October, 1993. To the same effect is the affidavit of R.P.C.B. dated October, 30 1993 and the further affidavit dated December 1, 1993. These Reports together with the report of NEERI clearly establish that huge quantities of sludge were still lying around either in the form of mounds or placed in depressions, or spread over the contiguous area and covered with local soil to conceal its existence. It is worth reiterating that the said sludge is only part of the pernicious discharges emanating from the manufacture of 'H' acid. The other part, which is unfortunately now visible no (except in its deleterious effects upon the soil and underground water) is the mother liquor produced in enormous quantities which has either flowed out of percolated into the soil.

57. So far as the responsibility of the respondents for causing the pollution in the wells, soil and the aquifers is concerned, it is clearly established by the analysis Report referred to in the Report of the Central experts team dated November 1, 1993 (Page 1026 of Vol. II). Indeed, number of Orders passed by this Court, referred to herein before, are premised upon the finding that the respondents are responsible for the said pollution. It is only because of the said reason that they were asked to defray the cost of removal and storage of sludge. It is precisely for this reason that, at one stage, the respondents had also undertaken the de-watering of polluted wells. Disclaiming the responsibility for the pollution in and around Bichhri village, at this stage of proceedings, is clearly an afterthought. We accordingly held and affirm that the respondents alone are responsible for all the damage to the soil, to the underground water and to the village Bichhri in general, damage which is eloquently portrayed in the several Reports of the experts mentioned herein above. NEERI has worked out the cost for repairing the damage at more than Rupees forty crores. Now, the question is whether and to what extent can the respondents be made responsible for defraying the cost of remedial measures in these proceedings under Article 32. Before we advert to this question, it may perhaps be appropriate to clarify that so far as removal of remaining sludge and/or the stoppage of discharge of further toxic wastes are concerned, it is the absolute responsibility of the respondents to store the sludge in a proper manner (in the same manner in which 720 MT of sludge has already been stored) and to stop the discharge of any other or further toxic wastes from its plants including Sulphuric Acid Plant and to ensure that the wastes discharged do not flow into or through the sludge. Now, turning to the question of liability, it would be appropriate to refer to a few decisions of the subject.

58. In *Oleum Gas Leak Case*, (AIR 1987 SC 1086) a Constitution Bench discussed this question at length and held thus : (At Pp. 1099-1100).

"We are of the view that an enterprise which is engaged in a hazardous or inherently dangerous industry which poses a potential threat to the health and safety of the persons working in the factory and residing in the surrounding areas owes an absolute and non-delegable duty to the community to ensure that no harm results to anyone on account of hazardous or inherently dangerous nature of the activity which it has undertaken. The enterprise must be held to be under an obligation to provide that the hazardous or inherently dangerous activity in which it is engaged must be conducted with the highest standard of safety and if any harm results on account of such activity, the enterprise must be absolutely liable to compensate for such harm and it should be no answer to the enterprise to say that it had taken all reasonable care and that the harm occurred without any negligence on its part. Since the persons harmed on account of the hazardous or inherently dangerous activity carried only the enterprise would not be in a position to isolate the process of operation from the hazardous preparation of substance or any other related element that caused the harm the enterprise must be held strictly liable for causing such harm as a part of the social cost for carrying on the hazardous or inherently dangerous activity. If the enterprise is permitted to carry on an hazardous or inherently dangerous activity for its profits, the law must presume that such permission is conditional on the enterprise absorbing the cost of any accident arising on account of such hazardous or inherently dangerous activity as an appropriate item of its overheads. Such hazardous or inherently dangerous activity for private profit can be tolerated only on condition that the enterprise engaged in such hazardous or inherently dangerous activity indemnifies all those who suffer on account of the carrying on of such hazardous or inherently dangerous activity regardless of whether it is carried on carefully or not.....We would therefore hold that where an enterprise is engaged in a hazardous or inherently dangerous activity and harm results to anyone on account of an accident in the operation of such hazardous or inherently dangerous activity resulting for example, in escape of toxic gas the enterprise is strictly and absolutely liable to compensate all those who are affected by the accident and such liability is not subject to any of the exceptions which operate vis-a-vis the tortious principle of strict liability under the rule in *Reyland v. Fletcher*, ((1868) LR 3 HL 330) (supra).

We would also like to point out that the measure of compensation in the kind of cases referred to in the preceding paragraph must be correlated to the magnitude and capacity of the enterprise because such compensation must have a deterrent effect. The larger and more prosperous the entire, greater must be the amount of compensation payable by it for the harm caused on account of an accident in the carrying on of the hazardous or inherently dangerous activity by the enterprise.

59. Sri Bhat, however, points out that in the said decision, the question whether the industry concerned therein was a 'State' within the meaning of Article 12 and, therefore, subject to the discipline of Part-III of the Constitution including Article 21 was left open and that no compensation as such was awarded by this Court to the affected persons. He relies upon the observations in the concurring opinion of Ranganath Misra, CJ., in Union Carbide Corporation, (1991) 4 SCC 584 : (AIR 1992 SC 248). The learned Chief Justice, referred in the first instance, to the proposition enunciated in Oleum Gas Leak Case and made the following observations in Paras 14 and 15.

"14. In M. C. Mehta case (AIR 1987 SC 1086) no compensation was awarded as this Court could not reach the conclusion that Shriram (the delinquent company) came within the meaning of 'State' in Article 12 so as to be liable to the discipline of Article 21 and to be subjected to a proceeding under Article 32 of the Constitution. Thus what was said was essentially obiter.

15. The extracted part of the observations from M. C. Mehta case (AIR 1987 SC 1086) perhaps is a good guidelines for working out compensation in the cases to which the ratio is intended to apply. The statement of the law ex-facie makes a departure, from the accepted legal position in Rylands, v. Fletcher,(1868) LR 3 HL 330). We have not been shown any binding precedent from the American Supreme Court where the ratio of M. C. Mehta decision has in terms been applied. In fact Bhagwati, C.J., clearly indicates in the judgment that his view is a departure from the law applicable to western countries."

(** A distinction between the Oleum Gas Leak Case and the present case may be noticed. That was not a case where the industry was established or was being operated contrary to law as in the present case. That was also not a case where the orders of lawful authorities and Courts were violated with impunity as in this case. In this case, there is a clear violation of law and disobedience to the orders of this Court apart from the orders of the lawful authorities. The facts stated above and findings recorded by us herein-after bear it out. This Court has to ensure the observance of law and of its Orders as a part of enforcement of fundamental rights. That power cannot be disputed.

If so, a question may arise why is this Court not competent to make Orders necessary for a full and effective implementation of its Orders -- and that includes the imposition and recovery of cost of all measures including remedial measures. Above all, the Central Government has the power under the provisions of Sections 3 and 5 of the Environment (Protection) Act, 1986 to levy and recover the cost of remedial measures-- as well shall presently point out. If the Central Government omits to do that duty, this Court can certainly issue appropriate directions to it to take necessary measures. Is it not open to the Court, in an appropriate situation,

to award damages against private parties as part of relief granted against public authorities. This is a question upon which we do not wish to express any opinion in the absence of a full debate at the Bar.)

60. The majority judgment delivered by M.N. Venkatachaliah, J. (on behalf of himself and two other learned Judges) has not expressed any opinion on this issue. We on our part find it difficult to say, with great respect to the learned Chief Justice, that the law declared in Oleum Gas Leak Case is obiter. It does not appear to be unnecessary for the purposes of that case. Having declared the law, the Constitution Bench directed the parties and other organisations to institute actions on the basis of the law so declared. ** Be that as it may, we are of the considered opinion that if it is assumed (for the sake of argument) that this Court cannot award damages against the respondents in these proceedings that does not mean that the Court cannot direct the Central Government to determine and recover the cost of remedial measures from the respondents. Section 3 of the Environment (protection) Act, 1986 expressly imposes the Central Government (or its delegate, as the case may be) to "take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of environment...". Section 5 clothes the Central Government(or its delegate) with the power to issue directions for achieving the objects of the Act. Read with the wide definition of "environment" in Section 2(a), Section 32 and 5 clothe the Central Government with all such powers as are "necessary or expedient for the purpose of protecting and improving the quality of the environment". The Central Government is empowered to take all measures and issue all such directions as are called for the above purpose. In the present case, the said powers will include giving directions for the removal of sludge, for undertaking remedial measures and also the power to impose the cost of remedial measures on the offending industry and utilises the amount so recovered for carrying out remedial measures. This Court can certainly give directions to the Central Government/its delegate to take all such measures, if in a given case this Court finds that such directions are warranted. We find that similar directions have been made in a recent decision of this Court in Indian Council for Enviro-Legal Action,(1995(5) SCALE 578) (supra). That was also a writ petition filed under Article 32 of the Constitution. Following is the direction:

"It appears that the Pollution Control Board had identified as many as 22 industries responsible for the pollution caused by discharge of their effluents into Nakkavagu. They were responsible to compensate to farmers. It was the duty of the State Government to ensure that this amount was recovered from the industries and paid to the farmers."

It is, therefore, idle to contend that this Court cannot make appropriate directions for the purpose of ensuring remedial action. It is more a matter of form.

61. Sri K. N. Bhat submitted that the Rule of absolute liability is not accepted in England or other Commonwealth countries and that the rule evolved by the House of Lords in Rylands v. Fletcher, 1866 (3) HL 330, is the correct rule to be applied in such matters. Firstly, in view of the binding decision of this Court in Oleum Gas Leak Case (AIR 1987

SC 1086), this contention is untenable, for the said decision expressly refer to the rule in Rylands but refuses to apply it saying that it is not suited to the conditions in India. Even so, for the sake of completeness, we may discuss the rule in Rylands and indicate why that rule is inappropriate and unacceptable in this country. The rule was first stated by Blackburn, J. (Court of Exchequer Chamber) in the following words:

"We think that the true rule of law is, that the person who for his own purposes brings on his lands and collects and keeps there anything likely to do mischief if it escapes, must keep it in at his peril, and, if he does not do so, is prima facie answerable for all the damage which is the natural consequence of its escape. He can excuse himself by showing that the escape was owing to the plaintiff's default; or perhaps that the escape was the consequence of vis major, or the act of God;... and it seems but reasonable and just that the neighbour, who has brought something on his own property which was not naturally there, harmless to others so long as it is confined to his own property, but which he knows to be mischievous if it gets on his neighbour's, should be obliged to make good the damage which ensues if he does not succeed in confining it to his own property."

62. The House of Lords, however, added a rider to the above statement, viz., that the user by the defendant should be a "non-natural" user to attract the rule. In other words, if the user by the defendant is a natural user of the land, he would not be liable for damages. Thus, the twin tests--apart from the proof of damage to the plaintiff by the act/negligence of the defendants--which must be satisfied to attract this rule are "foreseeability" and "non-natural "user of the land.

63. The rule in Rylands, (1868 LR 3 HL 330) has been approved by the House of Lords in the recent decision in Cambridge Water Company v. Eastern Counties Leather, PLC(1994) (2) W.L.R. 53 The plaintiff, Cambridge Water Company, was statutory corporation engaged in providing public water supply within a certain area including the City of Cambridge. It was lifting water from a bore well situated at some distance from Sawstyn. The defendant company, Eastern Leather, was having a tannery in Sawsty. Tanning necessarily involves degreasing of pelts. For that purpose, the defendant was using an organo chlorine called P.C.E.P.C.E. was stored in a tank in the premises of the defendant. The plaintiff's case was that on account of the P.C.E. percolating into the grounds the water in its well became contaminated and unfit for human consumption and that on that account it was obliged to find an alternative source at a substantial cost. It sued the defendant for the resulting damages. The plaintiff based his claim on three alternative grounds, viz., negligence, nuisance and rule in Rylands. The Trial Judge (High Court) dismissed the action in negligence and nuisance holding that the defendant could not have reasonably foreseen that such damage could occur to the plaintiff. So far as the rule in Rylands was concerned, the Trial Judge held that the user by the defendant was not a non-natural user and hence, it was not liable for damages. On appeal, the Court of Appeal declined to decide the matter on the basis of the rule in Rylands. It relied strongly upon the ratio in Ballard v. Tomlinson,(1885) 29 Ch. D. 115, holding that no person having a right to use a common source is entitled to contaminate that source so as to

prevent his neighbour from having a full value of his right of appropriation. The Court of Appeal also opined that the defendant's use of the land was not a natural use. On appeal by the defendant, the House of Lords allowed the appeal holding that foreseeability of the harm of the relevant type by the defendant was a pre-requisite to the right to recover damages both under the heads of nuisance and also under the rule in Rylands and since that was not established by the plaintiff, it has to fail. The House of Lords, no doubt, held that the defendant's use of the land was a non-natural use but dismissed the suit, as stated above, on the ground that the plaintiff has failed to establish that pollution of their water supply by the solvent used by the defendant in his premises was in the circumstances of the case foreseeable by the defendant.

64. The Australian High Court has, however, expressed its disinclination to treat the rule in Rylands as an independent head for claiming damages or as a rule rooted in the governing law of nuisance in *Burnie Port Authority v. General Jones Pvt. Ltd.* [(1994) 68 Australian Law Journal 331]. The respondent, General Jones Limited, had stored frozen vegetables in three cold storage rooms in the building owned by the appellant, Burnie Port Authority (Authority). The remaining building remained under the occupation of Authority. The Authority wanted to extend the building. The extension work was partly done by Authority itself and partly by an independent contractor (Wildridge and Sinclair Pvt. Ltd.) For doing its work, the contractor used a certain insulating material called E.P.S., a highly inflammable substance. On account of negligent handling of E.P.S., there was a fire which inter alia damaged the rooms in which General Jones had stored its vegetables. On an action by General Jones, the Australian High Court held by a majority that the rule in Rylands having attracted many difficulties, uncertainties, qualifications and exceptions, should now be seen, for the purposes of Australian Common Law, as absorbed by the principles of ordinary Negligence. The Court held further that under the rules governing negligence, if a person in control of a premises, introduces a dangerous substance to carry on a dangerous activity, or allows another to do one of those things owes a duty of reasonable care to avoid a reasonably foreseeable risk of injury or damage to the person or property of another. In a case where a person or the property of that other is lawfully in a place outside the premises, the duty of care varies in degree according to the magnitude of the risk involved and extends to ensuring that such care is taken. Applying the said principle, the court held that the Authority allowed the independent contractor to introduce or retain a dangerous substance or to engage in a dangerous activity in its premises which substance and activity caused a fire that destroyed the goods of General Jones. The evidence, the Court held, established that the independent contractor's work was a dangerous activity in that it involved real and foreseeable risk of a serious conflagration unless special precautions were taken. In the circumstances, it was held that the Authority owed a non-delegable duty of care to General Jones to ensure that its contractor took reasonable steps to prevent the occurrence of a fire and the breach of that duty attracted liability pursuant to the ordinary principles of negligence for the damage sustained by the respondent.

65. On a consideration of the two lines of thought (one adopted by the English Courts and the other by the Australian High Court), we are of the opinion that any principle evolved

in this behalf should be simple, practical and suited to the conditions obtaining in this country. We are convinced that the law stated by this Court in Oleum Gas Leak Case (AIR 1987 SC 1086), is by far the more appropriate one- apart from the fact that it is binding upon us. (We have disagreed with the view that the law stated in the said decision is obiter). According to this rule, once the activity carried on is hazardous or inherently dangerous, the person carrying on such activity is liable to make good the loss cost to any other person by his activity irrespective of the fact whether he took reasonable care while carrying on his activity. The rule is premised upon the very nature of the activity carried on. In the words of the constitution bench, such an activity "can be tolerated only on the condition that the enterprise engaged in such hazardous or inherently dangerous activity, indemnifies all those who suffer on account of the carrying on of such hazardous or inherently dangerous activity regardless of whether it is carried on carefully or not". The Constitution Bench has also assigned the reason for stating the law in the said terms. It is that the enterprise (carrying on the hazardous or inherently dangerous activity) alone has the resource to discover and guard against hazards or dangers and not the person affected and the practical difficulty (on the part of the affected person) in establishing the absence of reasonable care or that the damage to him was foreseeable by the enterprise.

66. Once the law in Oleum Gas Leak Case (AIR 1987 SC 1086), is held to be the law applicable, it follows, in the light of our findings recorded herein before, that respondents Nos. 4 to 8 are absolutely liable to compensate for the harm caused by them to villagers in the affected area, to the soil and to the underground water and hence, they are bound to take all necessary measures to remove the sludge and other pollutants lying in the affected area (by affected area, we mean the area of about 350 ha. indicated in the sketch at Page 178 of NEERI Report) and other also to defray the cost of the remedial measures required to restore the soil and the underground water sources. Sections 3 and 4 of Environment (Protection) Act confers upon the Central Government the power to give directions of the above nature and to the above effect. Levy of costs required for carrying out remedial measures is implicit in Sections 3 and 4 which are couched in very wide and expansive language. Appropriate directions can be given by this Court to the Central Government to invoke and exercise those powers with such modulations as are called for in the facts and circumstances of this case.

67. The question of liability of the respondents to defray the costs of remedial measures can also be looked into from another angle. which has now come to be accepted universally as a sound principle, viz. the "Polluter Pays" Principle.

"The polluter pays principle demands that the financial costs of preventing or remedying damage caused by pollution should lie with the undertakings which cause the pollution, or produce the goods which cause the pollution. Under the principle it is not the role of Government to meet the costs involved in either prevention of such damage, or in carrying out remedial action, because the effect of this would be to shift the financial burden of the pollution incident to the tax-payer. The 'polluter pays' principle was promoted by the Organisation for Economic Co-operation and

Development (OECD) during the 1970s when there was great public interest in environmental issues. During this time there were demands on Government and other institutions to introduce policies and mechanisms for the protection of the environment and the public from the threats posed by pollution in a modern industrialised society. Since then there has been considerable discussion of the nature of the polluter pays principle, but the precise scope of the principle and its implications for those involved in past, or potentially polluting activities have never been satisfactorily agreed.

Despite the difficulties inherent in defining the principle, the European Community accepted it as a fundamental part of its strategy on environmental matters, and it has been one of the underlying principles of the four Community Action Programmes on the Environment. The current Fourth Action Programme ((1987) O.J. C 328/I) makes it clear that the cost of preventing and eliminating nuisances must in principle be borne by the polluter, and the polluter pays' principle has now been incorporated into the European Community Treaty as part of the new Articles on the environment which were introduced by the Single European Act of 1986. Article 120R (2) of the Treaty states that environmental considerations are to play a part in all the policies of the Community, and that action is to be based on three principles: the need for preventive action ; the need for environmental damage to be rectified at source ; and that the polluter should pay."

("Historic Pollution - Does the Polluter pay?" By Carolyn Shelbourn - Journal of Planning and Environmental Law. Aug. 1974 issue.)

Thus, according to this principle, the responsibility for repairing the damage is that of the offending industry. Sections 3 and 5 empower the Central Government to give directions and take measures for giving effect to this Principle. In all the circumstances of the case, we think it appropriate that the task of determining the amount required for carrying out the remedial measures, its recovery/realisation and the task of undertaking the remedial measures is placed upon the Central Government in the light of the provisions of the Environment (Protection) Act, 1986. It is, of course, open to the Central Government to take the help and assistance of State Government, R.P.C.B. or such other agency or authority, as they think fit.

68. The next question is what is the amount required for carrying out the necessary remedial measures to repair the damage and to restore the water and soil to the condition it was in before the respondents commenced their operations. The Report of NEERI has worked out the cost at more than Rupees forty cores. The estimate of cost of remedial measures is, however, not a technical matter within the expertise of NEERI officials. Moreover, the estimate was made in the year 1994. Two years have passed by since then. Situation, if at all, must have deteriorated further on account of the presence of-and

dispersal of the sludge- in and around the complex of the respondents by them. They have been discharging other toxic effluents from their other plants, as reported by NEERI and the central team. It is by appropriate that an estimate of the cost of remedial measures be made now with notice to the respondents, which amount should be paid to Central Government and/or recovered from them by the Central Government. Other directions are also called for in the light of the facts and circumstances mentioned above.

69. CONCLUSIONS :

From the affidavits of the parties, Orders of this court, technical Reports and other data, referred to above (even keeping aside the latest Report of the R.P.C.B.), the following facts emerge:

(I) Silver Chemicals (R-5) and Jyoti Chemical (R-8) had manufactured about 375 MT of 'H' acid during the years 1988-89 . This had given rise to about 8250 m³ of waste water and 2440 tonnes of sludge (both iron-based and gypsum-based). The waste water had partly percolated into the earth in and around Bichhri and part of it had flowed out. Out of 2440 tonnes of sludge, about 720 tonnes has been stored in the pits provided by the respondents. The remaining sludge is still there either within the area of the complex of the respondents or outside their complex. With a view to conceal it from the eyes of the inspection teams and other authorities, the respondents have dispersed it all over the area and covered it with earth. In some places, the sludge is lying in mounds. the story of entombing the entire quantity of sludge is untrue.

The units manufacturing 'H' acid-indeed most of the units of the respondents - had started functioning i.e. started manufacturing various chemicals without obtaining requisite clearances/consents/licences. They did not instal any equipment for treatment of highly toxic effluents discharged by them. They continued to function even after and in spite of the closure orders of the R.P.C.B. They did never carry out the Orders of this Court fully, (e.g. entombing the sludge) nor did they fulfil the under taking given by them to the Court (in the matter of removal of sludge and de-watering of the wells). In spite of repeated Reports of officials and expert bodies, they persisted in their illegal course of action in a brazen manner, which exhibits their contempt for law, for the lawful authorities and the Courts.

(II) That even after the closure of 'H' acid plant, the fourth respondent had not taken adequate measures for treating the highly toxic waste water and other wastes emanating from the Sulphuric Acid Plant. The untreated highly toxic waste water was found - by NEERI as well as the Central team - flowing through the dumps of iron/gypsum sludge creating a highly potent mix. The letter of the fourth respondent dated January 13, 1996 shows that the Sulphuric Acid Plant was working till November 10,1995.

An assertion is made before us that permanent E.P.T. has also been constructed for the Sulphuric Acid Plant in addition to the temporary tank which was constructed under the Orders of this Court. We express no opinion on this assertion, which even if true, is valid only for the period subsequent to April, 1994.

(III) The damage caused by the untreated highly toxic wastes resulting from the production of 'H' acid - and the continued discharge of highly toxic effluent from the Sulphuric Acid Plant, flowing through the sludge (H acid waste) - is undecipherable. It has inflicted untold misery upon the villagers and long lasting damage to the soil, to the underground water and to the environment of that area in general. The Report of NEERI contains a sketch, at Page 178, showing the area that has been adversely affected by the production of 'H' acid by the respondents. The area has been divided into three zones on the basis of the extent of contamination. A total area of 350 ha. has become seriously contaminated. The water in the wells in that area is not fit for consumption either by human beings or cattle. It has seriously affected the productivity of the land. According to NEERI Report, Rupees forty crores is required for repairing the damage caused to men, land, water and the flora.

(IV) This Court has repeatedly found and has recorded in its Orders that it is respondents who have caused the said damage. The analysis Reports obtained pursuant to the directions of the Court clearly establish that the pollution of the wells is on account of the wastes discharged by Respondents Nos. 4 to 8, i.e. production of 'H' acid. The report of the environment experts dated November 1, 1993 has already been referred to herein before. Indeed, several orders of this Court referred to supra are also based upon the said finding.

(V) Sections 3 and 5 of the Environment (Protection) Act, 1986, apart from other provisions of Water and Air Acts, empower the Government to make all such directions and take all such measures as are necessary or expedient for protecting and promoting the 'environment', which expression has been defined in very wide and expansive terms in Section 2(a) of the Environment (Protection) Act. This power includes the power to prohibit an activity, close an industry, direct and/or carry out remedial measures, and wherever necessary impose the cost of remedial measures upon the offending industry. The principle "Polluter Pays" has gained almost universal recognition, apart from the fact that it is stated in absolute terms in Oleum Gas Leak Case (Air 1987 SC 1086). The law declared in the said decision is the law governing this case.

70. DIRECTIONS : Accordingly, the following directions are made :

1. The Central Government shall determine the amount required for carrying out the remedial measures including the removal of sludge lying in and around the complex of Respondents 4 to 8, in the area affected in village Bichhri and other adjacent villages, on account of the production of 'H' acid and the discharges from the Sulphuric Acid Plant of respondents 4 to 8. Chapter-VI and VII in NEERI report (submitted in 1994) shall be deemed to be the show-cause notice issued by the Central Government proposing the determination of the said amount. Within six weeks from this day, respondents 4 to 8 shall submit their explanation, along with such material as they think appropriate in support of their case, to the Secretary, Ministry of Environment and Forests, Government of India. (M.E.F.). The Secretary shall thereupon determine the amount in consultation with the experts of his Ministry within six weeks of the submission of the explanation by the said respondents. The order passed by the Secretary, (M.E.F.) shall be communicated to respondents 4 to 8 - and all concerned - and shall also be placed before this Court. Subject to the Orders, if any, passed by this Court, the said amount shall represent the amount which respondents 4 to 8 are liable to pay to improve and restore the environment in the area. For the purpose of these proceedings, the Secretary, (M.E.F.) and respondents 4 to 8 shall proceed on the assumption that the affected area is 350 ha. as indicated in the sketch at Page 178 of NEERI Report. In case of failure of the said respondents to pay the said amount, the same shall be recovered by the Central Government in accordance with law. The factories, plant, machinery and all other immovable assets, of respondents 4 to 8 are attached herewith. The amount so determined and recovered shall be utilised by the M.E.F. for carrying out all necessary remedial measures to restore the soil, water sources and the environment in general of the affected area to its former state.

2. On account of their continuous, persistent and insolent violations of law, their attempts to conceal the sludge, their discharge of toxic effluents from the Sulphuric Acid Plant which was allowed to flow through the sludge, and their non-implementation of the Orders of this Court - all of which are fully borne out by the expert committees Reports and the findings recorded hereinabove - Respondents 4 to 8 have earned the dubious distinction of being characterised as "rogue industries." They have inflicted untold misery upon the poor, unsuspecting villagers, despoiling their land, their water sources and entire environment - all in pursuance of their private profit. They have forfeited all claims for any consideration by this Court. Accordingly, we herewith order the closure of all the plants and factories of respondents 4 to 8 located in Bichhri village. The R.P.C.B. is directed to seal all the factories/units/plants of the said respondents forthwith. So far as the Sulphuric Acid Plant is concerned, it will be closed at the end of one week from today, within which period respondent No. 4 shall wind down its operations so as to avoid risk of any

untoward consequences, as asserted by respondent No. 4 in Writ Petition (C) No. 76 of 1994. It is the responsibility of respondent No. 4 to take necessary steps in this behalf. The R.P.C.B. shall seal this unit too at the end of one week from today. The reopening of these plants shall depend upon their compliance with the directions made and obtaining of all requisite permissions and consents from the relevant authorities. Respondents 4 to 8 can apply for directions in this behalf after such compliance.

3. So far as the claim for damages for the loss suffered by the villagers in the affected area is concerned, it is open to them or any organisation on their behalf to institute suits in the appropriate civil Court. If they file the suit or suits in forma pauperis, the State of Rajasthan shall not oppose their applications for leave to sue in forma pauperis.

4. The Central Government shall consider whether it would not be appropriate, in the light of the experience gained, that chemical industries are treated as a category apart. Since the chemical industries are the main culprits in the matter of polluting the environment, there is every need for scrutinising their establishment and functioning more rigorously. No distinction should be made in this behalf as between a large-scale industry and a small-scale industry or for that matter between a large-scale industry and a medium scale industry. All chemical industries, whether big or small, should be allowed to be established only after taking into considerations all the environmental aspects and their functioning should be monitored closely to ensure that they do not pollute the environment around them. It appears that most of these industries are water-intensive industries. If so, the advisability of allowing the establishment of these industries in arid areas may also require examination. Even the existing chemical industries may be subjected to such a study and if it is found on such scrutiny that it is necessary to take any steps in the interests of environment, appropriate directions in that behalf may be issued under Sections 3 and 5 of the Environment Act. The Central Government shall ensure that the directions given by it are implemented forthwith.

5. The Central Government and the R.P.C.B. shall file quarterly reports before this Court with respect to the progress in the implementation of Directions 1 to 4 aforesaid.

6. The suggestion for establishment of environment Courts is a commendable one. The experience shows that the prosecutions launched in ordinary criminal Courts under the provisions of the Water Act, Air Act and Environment Act never reach their conclusion either because of the work-load in those Courts or because there is no proper appreciation of the significance of the environment matters on the part of those in charge of conducting of those cases. Moreover, any orders passed by the authorities

under Water and Air Acts and the Environment Act are immediately questioned by the industries in Courts. Those proceedings take years and years to reach conclusion. Very often, interim orders are granted meanwhile which effectively disable the authorities from ensuring the implementation of their orders. All this points to the need for creating environment Courts which alone should be empowered to deal with all matters, civil and criminal, relating to environment. These Courts should be manned by legally trained person/judicial officers and should be allowed to adopt summary procedures. This issue, no doubt requires to be studied and examined in depth from all angles before taking any action.

7. The Central Government may also consider the advisability of strengthening the environment protection machinery both at the Centre and the States and provide them more teeth. The head of several units and agencies should be made personally accountable for any lapses and/or negligence on the part of their units and agencies. The idea, of an environmental audit by specialist bodies created on a permanent basis with power to inspect, check and take necessary action not only against erring industries but also against erring officers may be considered. The idea of an environmental audit conducted periodically and certified annually, by specialists in the field, duly recognised, can also be considered. The ultimate idea is to integrate and balance the concern for environment with the need for industrialisation and technological progress.

71. Respondents 4 to 8 shall pay a sum of Rupees fifty thousand by way of costs to the petitioner which had to fight this litigation over a period of over six years with its own means. Voluntary bodies, like the petitioner, deserve encouragement wherever their actions are found to be in furtherance of public interest. The said sum shall be deposited in this Court within two weeks from today. It shall be paid over to the petitioner.

72. Writ Petition (C) No. 967 of 1989 is allowed with the above directions with costs as specified hereinabove.

WRIT PETITION (C) NO. 76 OF 1994 :

73. In view of the decision in Writ Petition (C) No. 967 of 1989, the Writ petition is dismissed.

WRIT PETITION (C) NO. 94 OF 1990 :

74. In view of the decision in Writ Petition (C) No. 967 of 1989, no separate Orders are necessary in this petition. The writ petition is accordingly dismissed.

75. No Costs.

WRIT PETITION (C) NO. 824 OF 1993 :

76. In view of the decision in Writ Petition (C) No. 967 of 1989, no separate Orders are necessary in this petition. The writ petition is accordingly dismissed.

77. No costs. Order accordingly.