

PETITIONER:
MS.KAMINI JAISWAL, ADVOCATE

Vs.

RESPONDENT:
UNION OF INDIA & ORS.

DATE OF JUDGMENT: 04/03/1997

BENCH:
A.M. AHMADI, SUJATA V. MANOHAR, K.T. THOMAS

ACT:

HEADNOTE:

JUDGMENT:

J U D G M E N T

Mrs. Sujata V.Manohar, J

The petitioner is a practising advocate. She has filed the present petition as a public interest petition under Article 32 of the Constitution of India. The respondents are the Gas Authority of India Ltd. (hereinafter referred to as 'GAIL'), the Oil and Natural Gas Corporation Ltd. (hereinafter referred to as 'ONGC'), the Central Pollution Control Board and the Union of India.

The petitioner contends that the high pressure gas pipelines laid by GAIL and/or ONGC are unsafe in certain specified places and are potentially hazardous. The petitioner has prayed that these pipelines should be closed until an independent enquiry by experts certifies and declares that these pipelines are safe for further operation. The petition was filed pursuant to gas leakage from a high pressure gas pipeline of GAIL at Dhaula Kuan in Delhi on or about 8th of July, 1993.

GAIL was formed in the year 1984 for the purpose of handling natural gas related activities. Originally ONGC had planned the HBJ pipeline which was to run from Hazira to Babrala and Jagdishpur for supply of gas to the fertilizer and power plants enroute. This pipeline was taken over by GAIL from ONGC in the conceptualisation stage itself. Subsequently, GAIL added additional pipelines and spurlines to the HBJ pipeline. ONGC had also laid around 680 kms. of pipelines in various locations of the country such as the Gujarat region, Bombay region, K.G.basin, Cauvery basin etc. All these pipelines were transferred to GAIL, a health check of all these lines was carried out when it took over these pipelines. After the check, necessary corrective action which included replacement of some of the pipelines was also taken by GAIL both from the safety point of view as well as operational point of view. As of now, GAIL operates a total of 2974.856 kms. of pipelines.

The petitioner has contended that the pipelines have not been laid as per applicable international standards ANSI/ASME B 31.8 of 82. The specific averments in the petition relate to the DESU-Maruti Spurline laid by GAIL which admeasures about 35 kms. According to the petitioner,

the terms and conditions on which GAIL had given the contract for laying this pipeline have not been complied with. She contends that gas leakage detection and automatic shutting down system has not been provided. Telesupervisory system is not provided. Gas pipeline was required to be buried at least 1.5 metres below the ground. But the gas pipeline has not been so laid. The gas pipeline was required to be laid keeping adequate distance from human settlements but this has also not been done and lastly she contends that GAIL has not obtained clearance from the Department of Explosives. She has alleged lack of experience, lack of supervision or control by GAIL officials and mismanagement by GAIL so that the contractors have used sub-standard material and bad workmanship in laying the pipeline in violation of the safety guidelines. This resulted in gas leakage from this pipeline at Dhaula Kuan on 8th July, 1993.

GAIL has filed a detailed affidavit in reply to these allegations. It has laid before us three reports of experts in connection with the laying of the DESU-Maruti Spurline as also in connection with the safety of its pipeline system. GAIL has also furnished to us detailed technical material in connection with the allegations made by the petitioner.

GAIL has submitted that it had decided to lay the DESU-Maruti Spurline which is a short line by using their in-house experience. They had given a contract for the laying of this pipeline stipulating all the necessary conditions ensuring safety of the system. The contractor, however, defaulted in many ways while laying this pipeline. Ultimately GAIL was compelled to terminate his contract. There is an arbitration pending between GAIL and the contractor in connection with the defective workmanship and the termination of the contract. GAIL contends that it was this defective workmanship which led to the gas leakage at Dhaula Kuan. In connection with this accident GAIL set up a committee consisting of the Additional Director, Oil Industry Safety Directorate and two GAIL officers not connected with the project to report on the investigation of the failure of the DESU-Maruti pipeline at Dhaula Kuan. This report was placed before us. The committee has reported that (a) the area near Dhaula Khan being rocky normal mode of trenching using explosives was not possible due to close proximity to close proximity to traffic/habitations. Hence manual rock cutting had to be done. Consequently, against the tender specifications of 1.5 meter soil cover, about 1.0 meter cover could be achieved. (b) The space constraints with dense traffic near Dhaula Kuan restricted the use of conventional pipe lowering machinery for extended hours. (c) Necessary and sufficient details of existing utilities like underground cables, pipes were not available from civic authorities. (d) On excavation of the leakage affected area, it was observed that the bottom of the pipeline was found to be resting on a cable. (e) Inspection of buried pipeline route revealed soil settlement at various locations near Dhaula Kuan Park Area after heavy rains. This caused accumulation of stagnant water in some areas. One of the factors noted by the committee was that none of the persons associated with supervision of the job were aware about the existence of a cable underneath the pipe. Hence the HDPE the HDPE Sheet which is normally placed between the pipeline and the cable had not been placed.

We need not examine at length the various facts found by the committee as leading to that accident. What is more important, GAIL set up an internal committee to pin-point the lapses and to suggest corrective measures. This committee's report is also produced before us. The committee

noted that the specifications in the tender were very clear, exhaustive and adequate to take care of the safety aspects. However, some of the specifications as set out in the report were not taken care of by the contractor. It noted that some of the construction activities may not have been inspected by GAIL personnel or the inspection report may not represent the real status of the activity. The committee has commented upon trenching work and the fact that the cover of the pipe was at some places even less than 1.0 meter although the tender specification was 1.5 meters. This may be on account of the rocky soil and the prohibition on the use of explosives on account of the vicinity of the area to habitation. It commented on the defects in the inspection reports. It was also pointed out that thickness of the compacted padding on top of pipe corrosion coating should have been at least 150 MM. Padding material should have been graded soil/sand and/or other materials containing no gravel, rock or lumps of hard soil. Such padding material has not been observed at various points during the inspection. The report is a very detailed report setting out other defects also. It had made various suggestions; some of the suggestions being that (1) GAIL should deploy third party - Inspecting Agency for such activities of pipe laying; (2) That GAIL should supervise and monitor the activities of the third party inspecting agency and the activities of the contractor in respect of the compliance of tender specification; (3) That no deviation should be permitted by Engineer Incharge; (4) Necessary formats should be developed to ensure total conformity to the specification requirements; (5) GAIL Engineers and Supervisors should be given training programmes and (6) S(T) GAIL should have own quality audit cell for overseeing the quality compliance in totality.

GAIL also carried out a post-construction integrity survey through Sofregaz, an international agency known for its expertise in this area. Sofregaz was asked to carry out investigation and report whether safe engineering practices have been followed during construction of the existing underground pipelines; (2) to ascertain whether the pipeline has been laid as per standard construction specification/codes and to review the QA/QC procedures, namely, welding procedure specifications, material specifications, coating and cathodic protection and to recommend modifications/improvements wherever required. It was also required to carry out other detailed examinations as set out in its terms of reference. It was also required to carry out other detailed examinations as set out in its terms of control quickly any leak/burst etc. It was required to report on the status of pipeline, critical areas, preventive measures, disaster management plan, remedies and recommendations. Sofregaz report sets out that on its general assessment there was no apparent alarming deficiency in the pipelines with respect to safe operation and safety of life and property. GAIL should, however, take action to attend to the points listed in the minutes of the discussions for further improvement of long term safety of the pipelines. It also said that based on the survey of the depth of cover over the pipelines to the extent observed, it considers it to be well within the acceptable limit with reference to the standard followed by GAZ DE FRANCE in normal condition of operation. As such it was not necessary to undertake further lowering of the pipeline from the present state of cover to the extent observed. The detailed point-by-point action plan of Sofregaz and the action consequently taken by GAIL in connection with each of the

recommendations has been set out in detail as Annexure 2 to the report of Sofregaz is the outcome of a post-construction integrity survey for pipelines in and around Delhi. A technical survey by an independent agency was considered necessary in view of the fact that the Delhi pipeline network was the first urban and sub-urban gas distribution system executed by GAIL. A decision to have such a survey through international competitive bidding by an experienced international company was taken on 22.6.1993 even prior to the occurrence of the gas leak at Dhaula Kuan. The cost of such technical audit is part of the approved cost of the project itself.

A detailed status report has also been submitted dealing with diverse aspects of maintenance of the pipeline network in the country. It deals with the health check of the pipelines taken over from ONGC and the operation and maintenance control of the entire pipeline system in the country. The streamlining of procedures achieved over a period has led to GAIL obtaining certification by International Organisation for Standardization (ISO 9002) and conferment of the Oil Industry Safety Award to GAIL for the year 1992-93. GAIL has also pointed out that high pressure gas pipelines owned and operated by it across the country are laid as per international standards and in fact GAIL has prescribed even more stringent standards than the international code ANSI 31.8. It has annexed a comparative table in which, inter alia, the minimum cover of a pipe under ANSI is 75 cms. while GAIL has prescribed 75 cms. to 1.5 meters. GAIL has also taken the following important decisions to streamline the procedures in the matter of execution of works :

- (i) To have a 3-layer polythene coating which has a higher resistance to handling damage;
- (ii) To execute the work with an overall consultancy by third party agency with backup consultant;
- (iii) To have inspection both during procurement as well as construction by third party agencies along with the check inspecting agency in addition to an audit group of GAIL consisting of persons from a project other than the particular projects being audited; and
- (iv) To provide all future pipeline systems with optical fibre cable links to the various nodal points to ensure safe communication.

Looking to the detailed information furnished by GAIL and the measures taken by it as set out in the material which is disclosed by GAIL, we do not think any further action is now required to be taken by this Court. GAIL has been at pains to allay the apprehensions expressed by the petitioner. Looking to the material on record, we do not think that any further directions are required. The petition is accordingly disposed of. There will be no order as to costs.