

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

**Original Application No.193 of 2020 (SZ)**

**IN THE MATTER OF**

Tribunal on its own motion – SUO MOTU  
Based on the News item in Dinamalar Newspaper,  
Chennai Edition dated:24.09.2020, “Paddy field  
with crude oil as ONGC pipeline leaks”

.....Applicants(s)

Versus

- 1) The Chief Secretary to Govt. of Tamil Nadu,  
Govt Secretariate, Fort St. George,  
Chennai, Tamil Nadu – 600009.
- 2) Union of India Rep. by its Secretary,  
Ministry of Environment and Forests and Climate Change,  
Indira Paryavaran Bhawan,  
Jorbagh Rod, New Delhi 110 003.
- 3) Central Pollution Control Board,  
Rep. by its Chairman,  
Parivesh Bhawan, East Arjun Nagar,  
Shahdara, Delhi -110032.
- 4) The Secretary to Govt. of Tamil Nadu,  
Department of Environment,  
Govt Secretariat, Fort St. George Chennai,  
TamilNadu – 600009.
- 5) The Principal Secretary to Govt. of Tamil Nadu,  
Industries Department,  
Govt Secretariat, Fort St. George,  
Chennai, Tamil Nadu – 600 009
- 6) The Chairman,  
Tamil Nadu Pollution Control Board,  
No.76, Anna Salai, Guindy,  
Chennai, Tamil Nadu – 600 032
- 7) The District Collector,  
First Floor, Collectorate,  
Thiruvarur – 610004
- 8) Oil and natural Gas Corporation Limited,  
Rep. by its Chairman and Managing Director,  
New Delhi – 110 070
- 9) Oil and Natural Gas Corporation Limited,  
Cauvery Basin, Rep. by its Basin Manager,  
Thalamuthu Natarajan Bldg. (CMDA Tower-I)  
Egmore, Chennai – 600 008.

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**STATUS REPORT FILED BY THE DISTRICT COLLECTOR,**  
**TIRUVARUR DISTRICT ( 7<sup>th</sup> Respondent )**

(As per Hon'ble National Green Tribunal, Southern Zone, Chennai, in the  
Matter of Order dated:01.09.2020, in O.A. No. 193/2020).

The Hon'ble National Green Tribunal, South Zone, Chennai has Suo Motu registered this case based on the news paper reports published in the "Indian Express" Chennai Edition dated 24.09.2020 and one other news paper report published in the "Dhinamalar", Chennai Edition dated:24.09.2020, regarding the oil spill in the paddy field at Erukattur village, Koothanallur Taluk in Tiruvarur District due to ONGC Pipe line leakage. In this regard the Hon'ble National Green Tribunal (Southern Zone), in the interim orders dated:01.09.2020, has directed " The District Collector, Tiruvarur and the Tamil Nadu State Pollution Control Board to submit independent report file report regarding the incident including the action taken for the violations if any found and the assessment of environmental compensation.

2) In this regard report has been call for from the Revenue Divisional Officer, Mannargudi, The District Environmental Engineer, Nagapattinam and ONGC in this office letter R.C. Lr. No. 11256/2020/C2, dated:20.10.2020. The ONGC has submitted the report Lr. No.KKL/CA/ST/NGT HEARING / DC/2020, dated:19.10.2020. the Revenue Divisional Officer, Mannargudi has submitted the report letter R.C.No.5542/2020/B3,dated:31.10.2020, The District Environmental Engineer, Nagapattinam Letter No. / DEE/ TNPCB/ NPM/F.No.CC/2020, dated:28.10.2020 (copies enclosed).

Based on the above reports, and in compliance with the directions of the Hon'ble National Green Tribunal, Southern Zone, Chennai I am submitting the status report regarding the incident as detailed below.

**A) Details of Leakage :**

- Information regarding ONGC pipeline leakage was received in ONGC control room, Kamalapuram EPS, at about 22:50 Hrs on 22.09.2020 at Wells KMP#51 and 64 in the field owned by Thiru.Sivashanmugam, S/o.Dhanasekaran, in survey No. 72/1, Erukattur village, Koothanallur Taluk .

**B) Action Taken:**

- The ONGC team has reached the site at about 23:00 Hrs and closed the wells.
- Due to suspected leakage in one of in SRP Wells at KMP #22, 58 and 63 all wells were stop.
- ON 23.09.2020 the ONGC team visited the field affected in presence of Revenue and Police Officials, carry out the remedial measure and assessment of damage.
- The leakage was confirmed in KMP #58 #63 flow line and they were kept closed. KMP #22 was restarted on 23.09.2020 at about 13:30 Hrs.
- ONGC has reported that the soil near the leakage location was dug and a pin hole was observed and it was arrested by means of clamping.
- Spillage oil was completely recovered from the leakage location and shifted to the KMP-EPS for further action.

**C) Damages**

- No life loss, No cattle loss and No injuries reported.
- No major environmental damages reported.

- Oil spillage was spread over 0.40.50 Hectares of cultivated paddy.

**D) Payment of compensation:**

- The total extent of survey no.72/1 classified as wet land is 1.61.50 Hectares and paddy variety CR 1009 has been sown in the field.
- The oil spill was detected over 0.40.50 Hectares.
- ONGC has paid Rs.1,10,000/- as compensation amount for the damages to paddy crop.
- The compensation amount has been paid to Thiru.Dhanasekaran, S/o.Sivaperumal, (Father of the land owner Thiru.Sivashanmugam, S/o.Dhanasekaran, presently working at Qatar) under proper acknowledgement.

**E) Safety measures adopted by ONGC to monitor flow lines:**

- Periodical replacement of old corroded lines.
- Regular patrolling of the flow lines being done for visual observation and detection of surface leakage.
- The Village and public are sensitized about the consequences of the leakages and inform the ONGC authorities and in case of leakages.

**F) Conclusion:**

It is submitted that Hon'ble National Green Tribunal in the matter O.A.no. 66/2020 has already constituted a committee comprising of the 1) District Collector, Tiruvarur, 2) Senior officer of Central Pollution Control Board, 3) Senior Officer from TamilNadu Pollution Control Board, 4) Senior Soil Scientist from TamilNadu Pollution Control Board , regarding the pipe line leakage at Keezhapadugai and Erukkattur villages

in Tiruvarur District. An interim report of the committee has already been filed. The final report is yet to be filed. The suggestions and recommendations of the Committee regarding damage caused to the environment including soil fertility of the land, the remedial measures taken up by ONGC and shall be applicable in the instant case also. Hence, this application may be taken up along with the original Application No. 193/2020.

  
District Collector,  
Tiruvaur.

  
3/11/22



OIL AND NATURAL GAS CORPORATION LIMITED  
SURFACE TEAM  
CAUVERY ASSET: KARAIKAL



No.KKL/CA/ST/NGT HEARING /DC/2020

Date: 19.10.2020

To

The District Collector,  
Thiruvarur District,  
Thiruvarur.

Sub: NGT OA 193/2020 hearing on 04.11.2020- National Green Tribunal,  
South Zone, Chennai Regarding

Respected Sir,

We wish to kindly inform you that with reference to the above subject, ONGC legal department has been permitted to submit a reply statement.

Enclosed here with the narration of the incident and the necessary documents to enable our Legal Department for preparing a reply statement on the next date of hearing ,i.e. on 04.11.2020 at NGT,South Zone,Chennai.

Yours faithfully

*R Ravi Kumar*

(R.Ravikumar)  
General Manager(Production)  
Surface Team,  
ONGC Cauvery Asset,  
Karaiikal

Encl:

1. Incident details and ONGC methodology for pipe line maintenance.
2. Letter of intimation to DC, Thiruvarur about the incident.
3. Letter of intimation to DC,Thiruvarur on the Compensation details.
4. ONGC in house Compensation Committee report copy.



OIL AND NATURAL GAS CORPORATION LIMITED  
CAUVERY ASSET, NERAVY COMPLEX  
KARAIKAL 609604

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Date: 14.10.2020

Reference Original Application No 193 of 2020 (SZ)

National Green Tribunal, Southern Zone, Chennai

**RECONSTRUCTION OF THE EVENT/SEQUENCE LEADING TO THE INCIDENT:-**

At 22:50 Hrs. on 22.09.2020 KMP-EPS Control Room had received a call about the leakage back side of Well KMP#51 & 64( RS NO 72/I Kizha Erukattur Village, Kuthanallur Taluk) which is located in a paddy field.

(Land Owner – Shri. S. Dhanasekaran S/O Shri.Sivaperuman) Erakattur Village.

KMP-EPS crew rushed to the well site immediately upon the receipt of the call & closed the wells at 23.00 Hrs. Due to the suspected leakage in one of the SRP wells KMP#22, 58 & 63, all the three wells were stopped

Closed the Wing & Annulus valves and depressurised the flow lines from KMP – EPS end and observed that the leakage from the leaking location stopped completely.

Subsequently on the next day 23.09.2020 after negotiating with the land owner in presence of the State Revenue and Police officials ONGC officials were allowed to enter the area of land where leakage has occurred to carry out the necessary correction action.

After confirming the leakage is from the KMP#58/#63 flow line those wells were kept closed. KMP#22 SRP well was restarted on 23.09.2020 @ 13:30 Hrs

On digging out the soil near the leakage location, a pin hole was observed at 7'O clock position & the same was arrested by means of clamping. Spillage oil was recovered completely from the leakage location & shifted the same to KMP-EPS for further action.

Flow line replacement will be done by C&M team after obtaining necessary ROU.

No personnel injury or damages to the property/major environment damage occurred due to the above leakage.

**Information to the District Collector, Thiruvarur:-**

The above incident was communicated on 23.09.2020 to District Collector, Thiruvarur District through our Land Acquisition Department, ONGC, Karaikal.

**Information to TNPCB, Nagapattinam:-**

The above incident was communicated on 23.09.2020 to DEE, TNPCB, Nagapattinam District through our Asset Health, Safety, Environment (HSE), ONGC, Karaikal.

R Rani Kumar  
[Signatures]



OIL AND NATURAL GAS CORPORATION LIMITED  
CAUVERY ASSET, NERAVY COMPLEX  
KARAIKAL 609604

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**Payment of Compensation to Mr.S.Dhanasekaran ,The Land Owner:-**

An In-House Committee consisting of Officers from Land Acquisition Section, Finance Section and Production section has been constituted by ED-Asset Manager, ONGC Cauvery Asset to assess the compensation to be paid to the affected Land Owner. The Committee visited the affected area on 23.09.2020. (Oil spillage at Kizha Erukattur Village, Koothanallur Taluk, Thiruvarur District occurred at 2315 hrs on 22.09.2020)

The extent of damage of the leakage that occurred in KMP#58 flow line passing through the land (R.S NO 72/1) in Erukattur Village was assessed as 0.40.5 Hec and the compensation amount was fixed as Rs 1,10,000/- (Rupees one lakh and ten thousand only) as per the guidelines given by the District Collector, Thiruvarur District. Necessary modalities has been initiated to pay the compensation amount.

The refilling of the soil in the affected area shall be taken up after the cultivation/monsoon season as agreed by the land owner in the presence of VAO.

As a part of the ONGC in house Safety Practices an enquiry committee approved by the ED-Asset Manager, ONGC Cauvery Asset was constituted for enquiring into a minor leakage incident which was reported at KMP # 58 & 63 on 22.09.2020 at 23:00 hrs.

**Details of safety Measures being Adopted to monitor the flowlines:-**

Periodical replacement of old corroded lines.

Regular patrolling of the flow lines being done for visual observation and detection of any leakage on the surface.

Regular batch dosing of Oil Corrosion Inhibitor is being done at the well site to ensure the life of the flow line.

Proper drawings of pipe line in critical routes viz road crossings, road and rail bridges are being maintained at respective Installations and those locations are checked regularly.

Pressure testing of all the flowing wells (1.1 time of the maximum operating pressure) is being carried out once in two years as per OISD 233.

The villagers and public are sensitized about the consequences of the leakages and they have been advised to inform the ONGC authorities in case of any eventuality of leakage.

Display of important phone numbers at the well sites in order to contact the concerned person of ONGC for immediate and timely action.

R Ranj Kumar

Ganesh



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Way ahead in maintaining and monitoring the pipe line integrity:-

Presently ONGC has a policy of replacing the old pipelines which are more than ten years. Apart from that in case of any leakage in the pipeline frequently, complete replacement is carried out even if the life is less than 10 years.

Pipeline integrity is checked once in five years by way of Hydrotesting of the pipeline and pressure testing of the line with the existing well fluid once in every two years. (OISD 233).

Measures for determining the internal cracks, erosion and corrosion of the pipeline using inline inspection is a new technology and ONGC is pursuing with the vendor.

The contract for inline inspection methods are in initial phase of estimation and likely to be awarded by end of the Financial Year 2020-21.

Once the contract is in place, internal conditions like corrosion and thickness of all the major and critical pipelines will be checked. Based on the condition, the weak portions will be proactively replaced thereby avoiding any future chance of leakage.

As the existing flowlines are non piggable, regular Liquid N2 application / hot oil circulation is being done, to clear water accumulation and to avoid formation of sludge/scales inside the pipe line there by minimising the corrosion.

Presently all pipelines laid are 3 layered poly-ethylene coated pipes to avoid external corrosion. Moreover, Cathodic Protection exists for all the trunk pipelines. Measures are also being taken to execute the same in the well flowlines for recently laid pipelines through a contract which will be in place by Jan'2021. Remaining pipelines will be cathodically protected in a phased manner.

Oil Line Corrosion Inhibitor being used is procured as per Standard Corporate Specifications and the efficiency of the chemical is tested at ONGC Regional Labs using the well fluids of the Asset. Dosage Rate and Batch Dosing of Corrosion Inhibitor in flow lines are carried out as per the recommendations of the ONGC Research Institutes. Analysis of well fluid characteristics are being carried out regularly in the field laboratories.

R. Ravi Kumar

Ganesh

*(Handwritten signatures)*



OIL AND NATURAL GAS CORPORATION LIMITED  
CAUVERY ASSET, NERAVY COMPLEX  
KARAIKAL 609604

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Suggestions given by NGT Committee to ONGC on Soil quality monitoring:-

Presently the contaminated soil of excavated area is refilled with the soil taken from other location. To ensure good fertility and yield, the soil for refilling is taken from suitable location as suggested by the owner of the land who is well versed with the soil quality of that area.

As suggested by NGT Team, refilled soil quality shall be tested through the concerned local state authorities to ensure that they have similar characteristics of existing natural farm soil so as to avoid yield loss and accordingly corrective measures shall be taken based on the soil test report.

After the removal of contaminated soil and refilling by suitable soil the land is handed over to the land owner. The visit to the affected areas are being carried out by the ONGC crew and regular feed back is received from the land owner regarding cultivation and crop yield. Based on the feed back, corrective measures are taken including the additional crop compensation.

NGT Team also suggested the following which ONGC has agreed to follow:

1. Proactive testing of soil at random points along the flow line routes of vulnerable wells during non-cultivation period to identify minor seepages if any.
2. Instead of leaving the responsibility of refilling of new soil in the contaminated area to the land owner, ONGC itself should do it taking into confidence of local Revenue Authorities as VAO / RI who monitor the yield change if any in the land.

  
19/10/2020  
Surface HSE

  
19/10/2020  
Surface Chemistry

R. Ravi Kumar  
Surface Area Manager II

  
C & M Section

  
QAQ Section

  
Asset HSE



OIL & NATURAL GAS CORPORATION LIMITED  
CAUVERY ASSET : NERAVY : KARAIKAL

No.KKL/CA/LAQ/OIL SPILLAGE/2020

Dated: 23.09.2020

To  
The District Collector,  
Thiruvarur District,  
Thiruvarur.

Sub: Oil Spillage at Kizh Erukattur Village, Koothanallur Taluk, Thiruvarur District-  
Regarding

Sir,

We wish to kindly inform you that a flow line leak was reported by local village people in Kizh Erukattur Village near our well KMP#64 at around 2315hrs on 22.09.2020.

Subsequently our on duty crew from Kamalapuram EPS rushed to the well sites KMP#22 and KMP#58 and closed the wells at 2345hrs. The lines were also depressurised from KMP EPS end and leakage was totally stopped.

Today 23.09.2020 ONGC Team visited the above mentioned site and assessed the damages in the presence of state revenue officials.

The leakage has occurred in RS No 72/1 in Erukattur Village from where the flow line is passing through. The extent of damage is assessed as 0.40.5 Hec. and the compensation amount of Rs 1,10,000/- shall be paid to the land owner Sh.Dhanasekaran F/O D.Shivashanmugam, Kalamman Street, Kamalapuram, Thiruvarur.

Further we would like to inform you that the spilled oil from the field was recovered totally and the leakage point was clamped. The replacement of the line shall be taken up after obtaining the necessary ROU from the land owner.

Yours faithfully

R. Ravi Kumar  
23/9/2020  
(R. Ravikumar)

General Manager(Production)  
ONGC, Cauvery Asset,  
Karaiikal



OIL AND NATURAL GAS CORPORATION LIMITED  
SURFACE TEAM  
CAUVERY ASSET: KARAIKAL

23.

No.KKL/CA/ST/COMPENSATION/DC/2020

Date: 09.10.2020

To

The District Collector,  
Thiruvarur District,  
Thiruvarur.

Sub: Payment of Compensation to Mr.S.Dhanasekaran S/O Sivaperumen ,Kalamman Koil Street,  
Kamalapuram(PO) Thiruvarur District.

Ref:- Letter no KKL/CA/LAQ/OIL SPILLAGE/2020 dated 23.09.2020

Respected Sir,

We wish to kindly inform you that with reference to the above subject, an in house committee has been constituted and has visited the affected area on 23.09.2020. (Oil spillage at Kizh Erukattur Village, Koothanallur Taluk, and Thiruvarur District occurred at 2315 hrs on 22.09.2020)

The extent of damage of the leakage that occurred in KMP#58 flow line passing through the land (R.S NO 72/1) in Erukattur Village has been assessed as 0.40.5 Hec and the compensation amount has been fixed as Rs 1,10,000/- (Rupees one lakh and ten thousand only) Necessary modalities has been initiated to pay the compensation amount at the earliest.

The spilled oil from the field was recovered totally. The leakage point has been clamped and the line is isolated.

The refilling of the soil in the affected area shall be taken up after the cultivation/monsoon season as agreed by the land owner in the presence of VAO.

Yours faithfully

*R. Ravi Kumar*  
(R.Ravikumar)  
General Manager(Production)  
Surface Team,  
ONGC Cauvery Asset,  
Karaikal



**COMMITTEE VISIT FOR ASSESSMENT OF COMPENSATION DUE  
TO Leakage in KMP#58 line**

1.	Date of Committee Visit	23.09.2020	
2.	Name of Pipe Line	KMP#58	
3.	Date of Leakage	22.09.2020	
	Leakage Arrested on	22.09.2020	
4.	Place of Leakage	Village	ERUKKATTUR
		R.S.No.	72/1
		Taluk	KOOTHANALLUR
		District	TIRUVARUR
5.	Name of Damage	KMP#58 line	
6.	Name and full address of the land owner/tenant to whom compensation is to be paid	Shri.S.Dhanasekaran S/o Sivaperuman Kaliammankoil Street, Kamalapuram (PO) Tiruvapur District.	
7.	Compensation amount negotiated with land owner and fixed by the Committee.	Rate per ARE (in Rs) for paddy	2717
		Extent Damaged (in Hectares)	0.40.5
		Compensation Amount negotiated (in Rs)	1,10,000
		Rupees one lakh ten thousand only	
8.	<b>Remarks:</b> The Committee visited the area on 23.09.2020 and noticed that leakage has been occurred in KMP#58 line passing through his land and the entire land in R.S.No.72/1 was spread with traces of oil. The landowner has demanded compensation for loss of crop / change of soil and demanded a compensation of 2 Lakhs. After prolonged negotiation committee has offered a sum of Rs.1,10,000/- (Rupees one lakh ten thousand only) and the landowner has accepted to receive the compensation. Hence the committee recommends payment of compensation of Rs.1,10,000/- for 0.40.5 Hec.		

*S.Selva*  
S.Selva  
DGM (P)

*K.A. Manivannan*  
K.A. Manivannan  
DGM (F&A)

*K. Shanmugiah*  
K. Shanmugiah  
DGM (HR) LAQ



From

Er V.Dhanaraj, M.E.,  
District Environmental Engineer,  
Tamilnadu Pollution Control Board,  
Collectorate Master Plan Complex,  
Nagapattinam-611 003.

To

District Collector,  
District Collectorate,  
Thiruvananthapuram.

Letter No/DEE/TNPCB/NPM/F.No/CC/2020/ dated:28.10.2020

Sir,

Sub: TNPCB Board – M/s.NGT-O.A.No-193/2020 -ONGC Oil & Gas  
leakage at Erukattaur Village, Koothanallur Taluk, Thiruvananthapuram District-  
Detail Submitted - Reg.

Ref: 1.NGT O.A.No:193/2020(suomoto)

2. Letter No:11256/2020/C2/Dated:20.10.2020

With reference to 2<sup>nd</sup> cited I submit herewith the details of the NGT court case  
O.A.No-193/2020. The incident of oil leakage occurred at 22.09.2020 at around  
003 hrs as reported by the local people.

Flowline leak in Kizha Erukattaur Village occurs near the flow line of M/s. ONGC  
wells named KMP#22 and KMP#58/63 at around 0030 hrs.

It was reported that the crew from EPS Kamalapuram KMP reached the site  
KMP#58/63 KMP#22 and closed the wells at 0115 hrs and depressurized the lines  
from Kamalapuram EPS end.

They are SRP(Sucker Rod Pump) wells producing around 32 m<sup>3</sup> of well fluid  
containing 7 m<sup>3</sup> water and 25 m<sup>3</sup> oil.

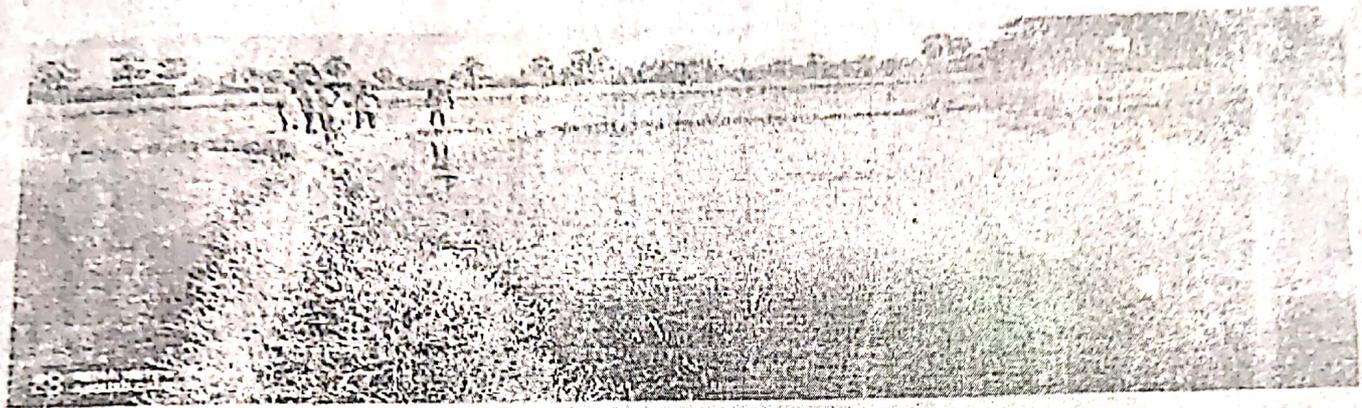
Lines pressure from the punctured line is depressurized, and the oil was collected  
and transported to their processing facility located at EPS Kamalapuram.

Trenching of the flow line is done and replace the clamped by the ONGC officials  
on 24.09.2020. Subsequently line portion was replaced after the necessary  
ROU(Right of User).

M/s. ONGC Ltd gave compensation to the land owners about farmers 1.1 Lakh amount is disbursed as per local administration guidelines.

This is submitted for kind information and necessary action please.

Encl : Photograph.



*V. S. S. S.*  
District Environmental Engineer  
Tamilnadu Pollution Control Board  
Nagapattinam.

*28/10/2020*



CORAM: HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER  
HON'BLE MR. SAIBAL DASGUPTA, EXPERT MEMBER

For Respondent(s) : . Mr. Mani Gopi for R1, R4, R5 & R7

ORDER

The above case has been taken up suo motu by this Tribunal on the basis of the news paper report dated 7.5.2020 in "Times of India" under the caption "Oil leak from ONGC pipe destroys cotton on 2 acres" at Thiruvarur. It is alleged in the report that oil leak from ONGC pipe line near Thiruvarur destroyed cotton crop in 2 acres of land on Friday night. However, the authorities arrived at the site and arrested the leakage, preventing further loss to farmers. ONGC has been digging oil wells in various places of agriculture lands across delta districts, particularly in Thiruvarur to extract oil and natural gas. The oil is taken through a collection point at Vellakudi in the District and then to the main plant located at Narimanan in Nagapattinam for refinement. It is also mentioned in the report that the disputed pipeline was passing through the property of one Selvaraj having 5 acres of land. On going through the newspaper report, the Tribunal had obtained the report from the Chairman, Tamil Nadu Pollution Control Board through Whatsapp which he had received from the District Environmental Engineer dated 3.4.2019 and 28.4.2019 and also 7.5.2020. It is seen from the first report that the earlier incident occurred on 6.4.2019 and it was reported in Times of India dated 7.4.2019. The site was inspected by the District Environmental Engineer, Nagapattinam on 8.4.2019 and he had informed that the contract team was mobilized by ONGC and the leaky spot was dug in the land down to the pipe. The line was clamped and flow was allowed in the wells only after replacement of a portion of the pipe. The condition of the line will be known only after cutting for which line to be flushed and purged with LN2. Till all operations are over, wells will be kept in closed condition. The land owner was pacified with a promise of compensation committee visit by 9.4.2019 and got permission for repair work (clamping followed by line flushing and replacement). No further unwanted/untoward issues happened. According to the report, the

approximate area affected was 5 M radius on above ground. Approximately 2 tractor loads of oil soaked soil has been removed and loaded with the tractor owned by the land owner Selvaraj. One load has been sent to sludge drying bed of Kamalapuram ETP for bio remediation. Another load is to be removed and will be sent to drying bed.

2. As regards the incident on 28.4.2020 it was mentioned in the report that immediately the District Environmental Engineer, Nagapattinam has contacted the ONGC officials and they reported that the ONGC well maintenance team of Kamalapuram EPS went to the site and closed the nearby suspected activities of well Nos.KMP – 8 and KMP – 44 wells by 15.20 hrs immediately. The bubbling started reducing in the pipeline immediately. It is also mentioned in the report that hardly about 2 x 2 Mts area in a land of one Velraj is affected and the land was empty and there is no crop in the field. The consent of the land owner was obtained for the purpose of repairing and that was done by ONGC immediately. It is also mentioned that the District Environmental Engineer has addressed the ONGC to rectify all the reclamation works such as removal of oil spill over in the soil and to submit the further report immediately.

3. On going through the report, we are satisfied that there arises substantial question of environment. The report is not specific about the action taken including the remediation as well as compensation to the affected. It is also not mentioned in the report the extent of damage caused to the soil and expenses required for rectifying the same and no independent assessment was made regarding the fertility of the soil affected.

4. Under these circumstances, we admit the matter and issue notice to the respondents. Mr. Mani Gopi, learned counsel entered appearance for respondents 1, 5 and 7. Issue notice to respondent no.3 through the Regional Office at Chennai. Issue notice to R2, 4, 6, 8 and 9 through e - mail.

5. We also feel it appropriate to constitute a committee comprising of (1) Senior Officer of Central Pollution Control Board, Regional Office, Chennai (2) Senior Officer from Tamil Nadu Pollution Control Board (3) Senior Soil Scientist from the Tamil Nadu Agricultural University, Coimbatore and (4) District Collector, Thiruvarur to inspect the area in question and submit status as well as action report, including assessment of damage caused to environment including fertility of the land, remedial measures taken by ONGC and whether it is sufficient and whether any compensation for damage caused to environment as well as damage caused to the land owners affected and submit a report to this Tribunal within a period of two months. Central Pollution Control Board, Regional Office, Chennai will be nodal agency for the purpose of coordination and providing logistics for this purpose. Registry is directed to communicate this order along with paper report and report of Pollution Control Board received to the above officials through e-mail immediately so as to enable them to comply with the direction. Committee is also directed to submit the report to this Tribunal through e-mail at [ngtstzfilng@gmail.com](mailto:ngtstzfilng@gmail.com) or e-filing before the time specified above. Respondents are directed to file their response in respect of the same apart from filing the report.

For consideration of report and appearance of respondents to whom notice was ordered, post on 20.7.2020.

.....J.M.  
(Justice K. Ramakrishnan)

.....E.M.

(Shri. Saibal Dasgupta)

O.A.66/2020  
11.5.2020-kkr

**Interim Status Report of the Joint Committee**  
*(As per Hon'ble National Green Tribunal, Southern Zone, Chennai*  
*Order dated 11.05.2020 in OA no. 66/2020)*

**1. Background**

The Honourable National Green Tribunal, Southern Zone, Chennai, in the matter of OA no. 66 of 2020 directed on 11.05.2020 as;

*".....5. We also feel it appropriate to constitute a committee comprising of (1) Senior Officer of Central Pollution Control Board, Regional Office, Chennai (2) Senior Officer from Tamil Nadu Pollution Control Board (3) Senior Soil Scientist from the Tamil Nadu Agricultural University, Coimbatore and (4) District Collector, Thiruvarur to inspect the area in question and submit status as well as action report, including assessment of damage caused to environment including fertility of the land, remedial measures taken by ONGC and whether it is sufficient and whether any compensation for damage caused to environment as well as damage caused to the land owners affected and submit a report to this Tribunal within a period of two months. Central Pollution Control Board, Regional Office, Chennai will be nodal agency for the purpose of coordination and providing logistics for this purpose. Registry is directed to communicate this order along with paper report and report of Pollution Control Board received to the above officials through e-mail immediately so as to enable them to comply with the direction. Committee is also directed to submit the report to this Tribunal through e-mail at [ngtszfiling@gmail.com](mailto:ngtszfiling@gmail.com) or e-filing before the time specified above...."*

**2. About Committee**

In accordance to Hon'ble tribunal direction, CPCB, RD(S), Bengaluru communicated the order and requested for nomination from respective departments vide letter no. Tech/39/NGT(SZ)/RDS/2020-21/80-83 dated May 20, 2020. Consequent upon the nominations received from respective department, a preliminary meeting was planned to be conducted on June 30, 2020 with the concurrence of committee members. The committee constituted with the following members:

1. Sh. T. Anand, IAS, Collector, Thiruvarur district
2. Sh. R. Rajkumar, Scientist 'D', CPCB, RD (S), Bengaluru
3. Sh. R. Seralathan, DEE, TNPCB, Nagapattinam
4. Dr. T. Chitdeshwari, Prof. (SS&AC), Dept. of Soil Science and Agriculture Chemistry, TNAU, Coimbatore

### 3. Scope of the committee as per order

To inspect the area in question and submit status as well as action report, assessment of damage caused to environment including soil fertility of the land, remedial measures to be taken up by ONGC and whether it is sufficient and any compensation need to be given for the damage caused to environment as well as to the land owners affected.

### 4. Committee Meeting

A preliminary meeting was conducted through online on 30.06.2020 at 11.00 AM with the committee members and discussed about the scope of committee as per order and trailed by the presentation from M/s ONGC on the present status of oil pipeline leakage. The following officials were present during the online meeting.

- i) Sh. T. Anand, IAS, Collector, Thiruvarur district
- ii) Sh. R. Rajkumar, Scientist 'D', CPCB, RD (S), Bengaluru
- iii) Dr. T. Chitdeshwari, Professor (SS7AC), TNAU, Coimbatore
- iv) Sh. R. Seralathan, DEE, TNPCB, Nagapattinam
- v) Sh. Dhilip Kumar R, AE, TNPCB, Nagapattinam
- vi) Sh. R.N.S.Murthy, GM(E)-Head HSE, ONGC, Cauvery Asset
- vii) Sh. R.Ravikumar, GM(P), ONGC, Cauvery Asset
- viii) Sh. K.J.Thomas, GM(P), ONGC, Cauvery Asset
- ix) Sh. S.Selva, DGM(P), ONGC, Cauvery Asset
- x) Sh. Vikranth C.N, EE(Environment), ONGC, Cauvery Asset

M/s ONGC has presented the action taken report to the committee on the pipeline leakage happened on 28.04.2020 and 06.04.2019 as well as measures taken to avoid such incident. The sequences of events are as follows;

#### (a) Action Taken Report on Kmp#44 Line Leakage at Keezhapadugai (28.04.2020)

- Information received from well maintenance team at 1430 hrs.
- Repairing team reached at 1500 hrs. Well No. KMP#44, KMP#8 & KMP#27 closed immediately to avoid large scale contamination of land.
- Underground flow line was clamped at 1800 hrs.
- Compensation of Rs 10,868/- was paid to the land owner on 29.05.2020 as one year crop loss compensation.

- Replaced the old damaged pipeline and new ones for a distance of about 2.1 Km completed on 09.05.2020



**(b) Action Taken Report on Kmp#46 & 48 Line Leakage at KeezhaErukkattur (06.04.2019)**

- ONGC well maintenance team observed the leakage at 0900 hrs.
- Both wells KMP#46 & KMP#48 closed immediately to avoid large scale contamination of land.
- Repairing team reached at 1000 hrs.
- Underground flow line clamped at 1700 hrs. The line was abandoned and decided not to use again. The wells were diverted to the flow line of another well KMP#54 temporarily till a new line is laid.
- Approximately 4 tractor loads of contaminated soil (1.5 mt depth) taken away from the affected land to KMP EPS for bio remediation.
- Compensation of Rs.50,000/- was paid to the land owner on 09.09.2019 as one year crop compensation.
- ONGC has entered into a contract for oil extraction from oily sludge and contaminated soils prior to bio remediation. The contract works were about to start in last week of March. Due to COVID-19 Lockdown, the contract execution is getting delayed.
- Replaced the old damaged pipeline and new ones for a distance of about 7.5 Km completed.

## KMP#46 Leakage Point Photo



### (c) Control Measures/ Remedial Action followed by ONGC to avoid Pipe Line Leakage

- i. Changed existing pipeline with higher thickness. Earlier pipe line material was API 5L X 42, 114.3MM OD X 4.8 MM wall thickness and presently replaced with the pipe line material of API 5L X 46, 114.3MM OD X 7.6 MM wall thickness. This replacement of pipe line has been carried out in a phased manner since 2012-13.
- ii. Periodical replacement of old corroded lines. In general all the old and corroded pipelines are replaced in full, but in case of flow lines where there is an issue of right of use (ROU), the lines are replaced in phased manner as and when the ROU is obtained from the landowner.
- iii. Regular patrolling of the flow lines is being done for visual observation and detection of any leakage on the surface.
- iv. Regular batch dosing of Oil Corrosion Inhibitor is being done at the well site to ensure the life of the flow line.
- v. Proper drawings/sign boards of pipe line in critical routes viz road crossings, roads and rail bridges are being maintained and the locations are checked regularly.

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- vi. Pressure testing of all the flowing wells (1.1 time of the maximum operating pressure) is being carried out once in two years as per OISD 233.
  - vii. The villagers and public are sensitized about the consequences of the leakages and has been advised them to inform the ONGC authorities in case of any eventuality of leakage.
  - viii. Display of contact phone numbers at the well sites in order to communicate with the concerned person of ONGC for immediate and timely action.
  - ix. Flow based monitoring is being carried out to identify the leakage in flow lines at the receiving end installation through SCADA system. Monitoring of liquid level in the storage tanks on hourly basis and initiate the necessary action (if required) in case of less receipt of liquid in the tanks.
  - x. Leak detection system has been incorporated in the recently laid trunk lines.
  - xi. Usually compensation is paid for one year crop loss. ONGC procedure to give compensation for the next year too if the land owner claims along with proof.

At the end of presentation, committee discussed about the scope of the work in detail. It is decided to make onsite visit, collect soil and water samples from the affected areas to assess the soil fertility (physical, chemical and biological properties) and environmental damage through Tamil Nadu Agricultural University, Coimbatore. Due to current COVID 19 pandemic situation, restriction of travel by governments on interstate/district movement and quarantine, the committee members from other state and district could not ~~able to~~ participate to carry out monitoring/sampling. So it is decided to carry out the onsite visit and monitoring after situation gets normalcy.

Collector, Thiruvarur instructed the officials of ONGC to make necessary arrangements, during the committees monitoring visits/sampling and <sup>ear</sup> ~~be~~ the cost of sampling & analysis under polluter pay principle, which is planned to be carried out by the Tamil Nadu Agricultural University, Coimbatore.

## 5. Suggestion & Conclusion:

Committee felt that the steps/measures taken by ONGC for the control of pipeline leakage are not sufficient, because the leakages and its locations are being identified after physical appearance of oil on the soil surface. Pipelines are being laid 2mt. below the ground

level. After deliberate discussions, the following measures are suggested by the committee to avoid oil pipeline leak and to maintain the soil fertility

- 1) Present method of flow based measurement at receiving end to identify the leakage of oil is not effective, because exact location of oil leak point is not able to be identified until its physical appearance in the top soil. The flow based measurement shall be carried out by providing flow meters in all pipelines with certain distance from well to receiving point, so that the area of pipeline leak shall be identified easily at initial stage itself. These flow meters shall be connected to any system like SCADA, PLC etc.
- 2) The periodic assessment of Pipe Integrity (including internal crack, corrosion & erosion) shall be made at least once in five years, so that the status of the pipeline shall be known and accordingly replacement period for the pipe shall be decided.
- 3) Pigging operation shall be carried out to reduce water accumulation and subsequent scaling & corrosion inside the pipeline.
- 4) External Corrosion Protection of pipeline shall be provided in all underground pipelines such as sacrificial anode method, impulse current method, poly ethylene coating etc. to avoid external corrosion of pipe.
- 5) Revalidating of appropriate inhibitors and rate of feeding based on well fluid characteristics (crude oil), can be done by frequent sampling and analysis of well fluid.
- 6) ONGC has informed that old pipelines are flushed once if it is not going to be used further in future. Evidence shall be provided to the committee during field visit to ensure that old unused pipelines are flushed properly.
- 7) ONGC shall also submit evidence of mothballing of pipeline which is temporarily not in use.

8) ONGC informed that the oil spilled soil (contaminated soil) is removed upto affected depth from the farmland and taken for in-house bioremediation. The contaminated soil excavated area is re-filled with soil taken from other location. It was informed that the refilled soil is also having good fertility. However, during this course of action the refill soil quality should be tested as well as it should possess similar characteristics of the existing natural farm soil so as to avoid yield loss.

9) ONGC is advised to carry out the assessment of soil quality in all locations, wherever the soil is refilled due to oil spillage/leakage and accordingly corrective measures needs to be taken.

10) An action plan for continuous monitoring of affected areas periodically by ONGC shall be submitted to avoid long term issues.

#### 6. Submission for extension of time

It is to inform that CPCB, RD Chennai got superannuated during May 2020 and additional charge is given to RD Bengaluru. Due to current situation Chennai office is functioning from Bengaluru and another committee member is from Coimbatore. Government of Tamil Nadu & Karnataka has restricted interstate /district travel and enforced quarantine for travellers, so the committee decided to carry out field work after normalcy resumes. So it is kindly requested the Hon'ble tribunal for extending further time to submit the final report after making the onsite visit and soil quality assessment.

s/d  
T. Anand, IAS  
Collector  
Thiruvarur district

s/d  
Dr. T. Chitdeshwari  
Prof. (SS&AC)  
Dept. of Soil Science and Agriculture  
Chemistry, TNAU, Coimbatore

s/d  
R. Rajkumar  
Scientist 'D'  
CPCB, RD (S), Bengaluru

s/d  
R. Seralathan  
DEE, TNPCB,  
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