



**STANDING COMMITTEE ON
PETROLEUM & NATURAL GAS
(2022-23)**

(SEVENTEENTH LOK SABHA)

MINISTRY OF PETROLEUM & NATURAL GAS

[Action Taken by the Government on the recommendations contained in the Nineteenth Report (Seventeenth Lok Sabha) of the Standing Committee on Petroleum and Natural Gas (2022-23) on the subject 'Safety and Security of Oil Installations of Public Sector Oil Companies with Specific Reference to Baghjan Blow-out incident']

TWENTY SECOND REPORT



**LOK SABHA SECRETARIAT
NEW DELHI**

August, 2023/Shravana, 1945 (Saka)

CP&NG NO.

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Presented to Lok Sabha on 08.08.2023

Laid in Rajya Sabha on 08.08.2023



**LOK SABHA SECRETARIAT
NEW DELHI**

August, 2023/Shravana, 1945 (Saka)

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**COMPOSITION OF THE STANDING COMMITTEE ON PETROLEUM & NATURAL
GAS (2022-23)**

Sl. No. Names of Members

LOK SABHA

Shri Ramesh Bidhuri – Chairperson

2	Dr. Ramesh Chand Bind
3	Shri Pradyut Bordoloi
4	Shri Girish Chandra
5	Smt. Chinta Anuradha
6	Shri Dilip Saikia
7	Shri Topon Kumar Gogoi
8	Shri Naranbhai Bhikhabhai Kachhadiya
9	Dr. Kalanidhi Veeraswamy
10	Shri Santosh Kumar
11	Shri Rodmal Nagar
12	Shri Mitesh Rameshbhai Patel
13	Shri Unmesh Bhaiyyasaheb Patil
14	Shri M.K. Raghavan
15	Shri Chandra Sekhar Sahu
16	Shri Gajanan Chandrakant Kirtikar
17	Dr. Bharatiben Dhirubhai Shiyal
18	Shri Janardan Singh Sigriwal
19	Shri Lallu Singh
20	Shri Vinod Kumar Sonkar
21	Shri Ajay Tamta

RAJYA SABHA

22	Shri Shaktisinh Gohil
23	Smt. Kanta Kardam
24	Shri Mithlesh Kumar
25	Shri Pabitra Margherita
26	Shri Rambhai Harjibhai Mokariya
27	Shri Surendra Singh Nagar
28	Dr. Sasmit Patra
29	Shri Subhas Chandra Bose Pilli
30	Dr. V. Sivadasan
31	Shri Ravichandra Vaddiraju

SECRETARIAT

1	Shri Y.M. Kandpal	Joint Secretary
2	Shri H. Ram Prakash	Director
3	Shri Brajesh Kumar Singh	Deputy Secretary

(iv)

INTRODUCTION

I, the Chairperson, Standing Committee on Petroleum & Natural Gas having been authorised by the Committee to submit the Report on their behalf, present this Twenty-Second Report on Action Taken by the Government on the recommendations contained in the Nineteenth Report (Seventeenth Lok Sabha) of the Committee on the subject 'Safety and Security of Oil Installations of Public Sector Oil Companies with Specific Reference to Baghjan Blow-out incident'.

2. The Nineteenth Report of the Standing Committee on Petroleum & Natural Gas was presented to Lok Sabha/ laid on the table of Rajya Sabha on 23.03.2023. The Action Taken Replies of the Government to all the recommendations contained in the Nineteenth Report were received on 03.07.2023.

3. The Standing Committee on Petroleum & Natural Gas (2022-23) considered and adopted the Report at their sitting held on 04.08.2023.

4. An analysis of the action taken by the Government on the recommendations contained in the Nineteenth Report (Seventeenth Lok Sabha) of the Standing Committee on Petroleum & Natural Gas is given in Annexure-II.

5. For facility of reference and convenience, the observations and recommendations of the Committee have been printed in bold letters in the body of the Report.

6. The Committee place on record their appreciation for the valuable assistance rendered to them by the officers of the Lok Sabha Secretariat attached to the Committee.

New Delhi;
04 August, 2023
13 Shravana, 1945 (Saka)

RAMESH BIDHURI,
Chairperson,
Standing Committee on
Petroleum & Natural Gas.

REPORT CHAPTER I

This Report of the Standing Committee on Petroleum and Natural Gas deals with the action taken by the Government on the recommendations contained in the Nineteenth Report (Seventeenth Lok Sabha) of the Standing Committee on Petroleum and Natural Gas (2022-23) on the subject 'Safety and Security of Oil Installations of Public Sector Oil Companies with Specific Reference to Baghjan Blow-out incident', which was presented to Lok Sabha and laid in Rajya Sabha on 23.03.2023.

2. Action Taken Notes have been received from the Ministry on 03.07.2023 in respect of all the 14 recommendations/observations contained in the report. These have been categorized as per the following:

(i) Recommendations/Observations that have been accepted by the Government:- Reco. Nos. 1, 2, 3, 4, 5, 7, 9, 12 and 14 (Total - 9)

(Chapter- II)

(ii) Recommendations/Observations which the Committee do not desire to pursue in view of the Government's replies:- Nil

(Chapter- III)

(iii) Recommendations/Observations in respect of which replies of the Government have not been accepted by the Committee:- Reco. Nos. 6, 10, 11 and 13 (Total - 04)

(Chapter- IV)

(iv) Recommendations/Observations in respect of which final replies of the Government are still awaited:- Reco. No. 8 (Total - 01)

(Chapter- V)

3. **The Committee are satisfied to note that the Ministry has accepted 09 recommendations out of 14 recommendations of this Committee and further expect the Ministry to monitor the implementation of the same. The Committee also desire that the Action Taken Notes on the Recommendations/Observations contained in Chapter-I of this Report and Final Replies in respect of the recommendations for which interim replies have been furnished by the Government (included in Chapter-V), should be furnished expeditiously.**

4. The Committee will now deal with the action taken by the Government on some of their recommendations.

Recommendation No. 5

Need for enquiry by the Ministry

5. The Committee had recommended as under:

“The Committee note that three Committees constituted to enquire about Baghjan incident had found a series of lapses on the part of officials of OIL concerned with the planning and execution of workover at Baghjan-5. The Committee further note that the lapses caused great damage to the people and the environment of surrounding areas besides causing huge financial loss. The Committee further note that the crisis management of the incident could have been better. While initially 18 officials were suspended in the wake of disciplinary proceedings, two were found guilty. The Committee observe that fixing of responsibilities in this regard is grossly inadequate to the proportion of damages caused and lapses committed at procedural levels by the personnel of OIL.

The responsibility of ensuring a safe work procedure vest with Oil PSUs and they need to be accountable. The role of senior officers is more of supervisory nature but the same was missing in this case. Accordingly, this Committee recommend Ministry to institute an enquiry into lack of proper supervision and monitoring in workover programme at Baghjan-5 and fix appropriate responsibility and accountability to bring out any erring and incompetent officials of OIL”.

6. In this regard, the Ministry has submitted the following reply:

“A three member High Level Committee was constituted vide this Ministry’s order dated 11.06.2020 to enquire into the incident of blow out and fire at Baghjan oilfield. The report of the High Level Committee has been accepted by the Government and OIL was asked to take action on the recommendations of report and also against the officers responsible for lapses. Action has been taken up by OIL to ensure proper safety and security system to avoid repetition of similar incidents in future and majority of the HLC recommendations

have been implemented by OIL.

The Government of India had also constituted a five-member committee in compliance of order dated 19.02.2021 passed by the Principal Bench of National Green Tribunal. New Delhi (NGT) in Bonani Kakkar Vis Oil India Limited & Others, Original Application No. 43/2020 (EZ). The recommendations of committee were accepted and forwarded to upstream companies for implementation. OISD monitors the status of implementation of the recommendations of the Committee on quarterly basis and a review meeting is taken by Ministry once in six months with Heads/senior representatives from DGMS, DGH and other major E&P companies (both PSU & private). Safety Council reviews status of implementation of the recommendations of the Committee once every year.

After the incident at Baghjan well No. 5 of M/s Oil India Limited, an inquiry was conducted by the officer of DGMS to ascertain the causes and circumstances that led to the incident. Based on the findings of the inquiry, action has been taken against the persons responsible for the incident.

Prosecution has been initiated against the (i) Nominated Owner of the company (ii) Agent, (iii) Mine Manager, (iv) Deputy Mine Manager, (v) Installation manager, (vi) Chief Engineer – Oil & Gas services M/s OIL (Agent), for the contravention of the provisions of the Mines Act 1952 and Oil Mines Regulation 2017”.

Ministry of Petroleum & Natural Gas

O.M. No.Expl-12023(11)/1/2021-EXPL-II-PNG dated 3rd July, 2023

Comments of the Committee

7. The Committee in their original Report had recommended the Ministry to institute an enquiry into lack of proper supervision and monitoring in workover programme at Baghjan-5 and fix appropriate responsibility and accountability to bring out any erring and incompetent officials of OIL.

The Ministry in its written reply has stated that OIL has initiated Prosecution has been initiated by OIL against the (i) Nominated Owner of the company (ii) Agent, (iii) Mine Manager, (iv) Deputy Mine Manager, (v) Installation manager, (vi) Chief Engineer – Oil & Gas services M/s OIL

(Agent), for the contravention of the provisions of the Mines Act 1952 and Oil Mines Regulation 2017.

The Committee while being satisfied with the action taken by OIL on this issue, would like to wait for the outcome of the prosecution against the officials.

Recommendation No. 6

Need for observance of Environmental Laws

8. The Committee had recommended as under:

“The Committee note that the Justice B.P. Katakey Committee Report had found that, OIL did not have the mandatory clearances under several Acts to operate in the particular well. The Committee further note that the replies of the Ministry and OIL inform that it had mandatory consent to establish or operate under abovementioned laws on the day of the blow out of Baghjan-5 and subsequent fire on 09.06.2020. However, the Ministry have stated that OIL had obtained all mandatory statutory clearances as per the requisite applicable laws.

The Committee note that a number of licenses and approvals are required under various laws pertaining to the mining and protection of environment for exploration and extraction of oil and gas. The Committee further note that these licenses are for a specific period, and they are required to be renewed after the lapse of the same. If these were to be reviewed by Directorate General of Hydrocarbons (DGH)/Ministry of Petroleum and Natural Gas from time to time, such lapses could have been noticed. There is need to institutionalise such a mechanism. The Committee, therefore, recommend the Ministry of Petroleum and Natural Gas to take up the issue with all the PSUs and review the compliance of all applicable laws in the oil and gas fields that are currently in operation. Action taken in this regard may be intimated within three months”.

9. In this regard, the Ministry has submitted the following reply:

“The checklist for carrying out OISD external safety audit also includes compliance of environmental requirements. Checklist shall be further reviewed to make it more inclusive of the requirements.

OIDSD is also revising standard OISD-RP-201 on 'Environment Management in E&P sector' with extended scope to cover entire oil & gas industry.

As far as OIL is concerned, it routinely obtains, monitors and renews regulatory clearances (e.g., forest clearance, environment clearances, CTO, CTE, etc.) for all of its operations and installations. All essential conditions stipulated in such clearances are also followed.

In addition to the above measures, it may be pertinent to mention that recently on the environmental front, OIL has included ESG activities under project "KAVACH", with objectives of meeting following targets.

- ***OIL to be net zero by 2040.***
- ***Emission reduction of 45% from 2005 level by 2030.***
- ***Develop Strategy & Policy to fulfil National & Global Standards.***
- ***Adoption of Alternative Cleaner Fuels in its Operations.***
- ***Focus on Energy Efficiency.***
- ***Focus on CCUS, Flare reduction.***
- ***Offset Mechanism & Green Energy (Biofuel, Green Hydrogen, Renewables), carbon credits etc.***

ONGC complies with applicable laws, rules/ regulations and guidelines in the oil and gas fields. Compliance of these is regularly checked by the Regulatory/Competent authorities during regular External Safety Audits/ Inspections. Compliance is also checked during the Internal Safety Audits, carried by Multi- Disciplinary Teams of ONGC officials. It is ensured that action is taken on the audit observations at earliest. Compliance status of observations is monitored at Highest Level of Management. Action taken on the observations is also submitted to the concerned Regulatory/Competent authorities".

Comments of the Committee

10. The Committee in their original Report had noted that as per Justice B.P. Katakey Report, OIL did not have mandatory clearances under several environmental acts to operate in the particular well. Thereafter, this Committee had recommended the Ministry of Petroleum and Natural Gas to take up with all Oil PSUs and review compliance of all environmental laws which were applicable to oil and gas fields. The reply of Ministry of Petroleum and Natural Gas mentions extant practices being followed by OISD. It does not mention about any review done or being done for all necessary clearances in position of Oil PSUs. Therefore, the Committee are disappointed to note neither the Ministry nor the OISD has undertaken such review of compliance of all applicable laws by Oil PSUs and accordingly, they reiterate their earlier recommendation to the Ministry of Petroleum and Natural Gas and OISD to take up the issue with all Oil PSUs and review compliance of all environmental laws which were applicable to oil and gas fields.

Recommendation No. 8

Need for Single Safety Agency for Petroleum Sector

11. The Committee had recommended as under:
- “The Committee note that the Oil and Gas sector is being regulated by many agencies like Directorate General of Mines Safety (DGMS), Petroleum and Explosives Safety Organisation (PESO), Oil Industry Safety Directorate (OISD), Petroleum & Natural Gas Regulatory Board (PNGRB), Directorate General of Shipping (DGS), Fire Departments and Lifts Departments from State Governments, etc., for different activities in the petroleum sector. One of the safety enforcement agencies in the Ministry of Petroleum & Natural Gas is OISD, but it has no statutory powers as it is only a technical directorate, and all its officials are on deputation. Since many agencies are performing focused and limited role in enforcing the rules and regulations under the laws mandated to them, a holistic approach is missing for the sector. Many a time the gaps in legislation is also not noticed as many regulators are busy enforcing their mandate alone.*”

The Committee further note that they had vide their recommendation No. 3, in their Report No. 12 (15th Lok Sabha) and recommendation No. 10, in their Report No. 24 (16th Lok Sabha) and recommendation No. 5 in their Report No. 13 (17th Lok Sabha) recommended for formation of single agency to enforce safety related rules and regulations in the petroleum sector. The Committee also note that the High-Level Committee (HLC) constituted by the Government of India to enquire into the sequence of events leading to stranding of vessels and accident after the Cyclone Tauktae had also concluded that the Government consider setting up a single statutory regulator for exercising effective oversight on safety aspects of all onshore and offshore oil fields.

This Committee reiterate their earlier recommendation for a single safety agency for oil and gas sector and expect the Ministry to implement the same for ensuring the safety culture in Oil PSUs and regulating agencies. A weak safety framework is detrimental to not only general public but also to the oil companies. The accidents besides derailing their normal activities, lower confidence of the public and investors. Therefore, formation of a single regulatory authority for the oil and gas sector is a requirement of the time in the interest of the industry. Accordingly, this Committee again recommend to the Ministry of Petroleum & Natural Gas to undertake serious deliberations and take effective steps towards formation of single regulatory body for oil and gas industry”.

12. In this regard, the Ministry has submitted the following reply:

“A working group has been constituted by Ministry of Petroleum & Natural Gas, comprising of members drawn from the Oil and Gas Industry (Upstream, Midstream and Downstream), PNGRB, OISD, Academia, Shipping and Fire Services with the scope to review the whole gamut of safety system and suggest necessary changes for Petroleum Sector in India, identify gaps in extant laws and recommend way forward to establish single safety regulator for petroleum sector. The Working Group is expected to submit its report by August 2023”.

Comments of the Committee

13. The Committee in their original Report had recommended that the Ministry of Petroleum & Natural Gas to undertake serious deliberations and take effective steps towards formation of single regulatory body for oil and gas industry.

The Ministry in its written reply has stated that it has constituted a Working Group comprising of members drawn from the Oil and Gas Industry (Upstream, Midstream and Downstream), PNGRB, OISD, Academia, Shipping and Fire Services with the scope to review the whole gamut of safety system and suggest necessary changes for Petroleum Sector in India, identify gaps in extant laws and recommend way forward to establish single safety regulator for petroleum sector. The Working Group is expected to submit its report by August 2023.

The Committee note that the Ministry has constituted the above Working Group and the Report of the group is expected by August, 2023. The Committee would like to await for submission of the Report and its recommendation/conclusions.

Recommendation No. 10

Restructuring HSE Management System by Oil PSU's

14. The Committee had recommended as under:
- “The Committee note that a series of lapses at the planning and execution level caused the Baghjan-5 incident. The Committee further note that the justice Katake Committee had observed that OIL did not have the mandatory consent to establish or operate under various environmental laws on the day of Blow out incident at of Baghjan-5 i.e. 9" June, 2020. These lapses and disregard of environmental laws have led this Committee to conclude that the monitoring from higher level functionaries of OIL was weak. The Committee desire OIL to introduce an IT-enabled system to Drilling, Workover and Production operations to ensure availability of real-time information on critical*

Well operations to key personnel and senior management for strengthening of Oil Well Services.

Accordingly, the Committee recommend OIL to increase the frequency of meetings of Health Safety Environment (HSE) sub Committee and also strengthen its HSE management system in the light of lessons drawn from Baghjan-5 incident and other incidents in the upstream sector.

The Committee further feel that the current safety structure may need review as the HSE Officials in PSU organizations report to their top management and hence could be under pressure to allow violations/ be indifferent to complete the work on time. Therefore, the Committee recommend that the Ministry/DGH and the safety agencies like OISD/DGMS to review the existing structure and implement a mechanism by which the safety functions are headed by officials from other PSUs to ensure reasonable autonomy to the safety functionaries and help in developing a strong safety culture in the organization”.

15. In this regard, the Ministry has submitted the following reply:

“HSE management system of OIL has been reviewed and approved by the respective Head of Fields. The OIL HSE Management System (HSE-MS) is to provide the framework and structure for the delivery of the highest level of HSE Performance in accordance with the best exploration, production, and transportation practice.

It is a dynamic system, and the HSE-MS will continually evolve to respond to changing needs and emerging operational requirements as the Mines/ Departments is going through a period of transition.

Amongst the various documents in the HSE management system, the HSE-MS manual is the most important and essential document. The specific purpose of the Manual is to document the core elements of the HSE management system, their relationship and interaction.

The OIL HSE Management System is integrated into the overall

management system. HSE Management System cuts across the functional boundaries of different departments and installations/facilities and is managed in an integrated and coordinated way.

Project KAVACH envisages to further reinforce transformational standardization of HSE Organization and Management System through Establishment of Integrated HSE Organization, conducting perception survey and gap analysis.

High Level Committee in Baghjan Accident, had advised for strengthening of HSE functioning by recommending for direct reporting of Chief HSE to CMD. In compliance to the recommendation, ONGC has changed the reporting structure of Chief HSE, from Director-I/c to Chairman & CEO”.

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Comments of the Committee

16. The Committee in their original Report had recommended that the Ministry/DGH and the safety agencies like OISD/DGMS to review the existing structure and implement a mechanism by which the safety functions are headed by officials from other PSUs to ensure reasonable autonomy to the safety functionaries and help in developing a strong safety culture in the organization.

The Ministry in its written reply has stated that HSE management system of OIL has been reviewed and approved by the respective Head of Fields. The Ministry has further stated that OIL is implementing project KAVACH which envisages to further reinforce transformational standardization of HSE Organization and Management System through Establishment of Integrated HSE Organization, conducting perception survey and gap analysis. The Ministry has also stated that High Level Committee in Baghjan Accident, had advised for strengthening of HSE functioning by recommending for direct reporting of Chief HSE to CMD and in compliance to the recommendation, ONGC has changed the reporting

structure of Chief HSE, from Director-l/c to Chairman & CEO.

The Committee note that the original recommendation of the Committee regarding increasing the frequency of meetings of HSE Sub-Committee of OIL and heading of safety functions in Oil PSUs by officials from other PSUs have not been addressed by the Ministry. The Committee reiterate their earlier recommendation to increase the frequency of meetings of HSE Sub-Committee of Oil PSUs. The action taken reply of the Ministry is also silent about review of safety function and hierarchy and manning by officials from other PSUs at senior level. The Committee, therefore, reiterate their earlier recommendation to Ministry/DGH/DGMS to review the existing safety structures in Oil PSUs and implement a mechanism by which the safety functions are headed by officials from other PSUs to ensure reasonable autonomy to the safety functionaries and develop a strong safety culture in the organization.

Recommendation No. 11

Strengthening of Infrastructure near Oil Installations

17. The Committee had recommended as under:

“The Committee observed that a similar facility is required to be set up in Guwahati too. There are several oil and gas related plants/units in and around Guwahati and therefore, the ERC can provide effective crisis management alongwith bolstering the safety infrastruce in North East region. The Committee, therefore, recommend that Ministry should take necessary action for setting up a Emergency Response centre in Guwahati at the earliest.

The Committee note that there are many oil and gas Installations in the North East and several new projects are being undertaken. The Committee observe that North East region including Assam and Tripura has got oil and gas fields, refinery in Assam, LPG bottling plants and city gas distribution pipelines. Indradhanush Gas Grid Ltd. (IGGL) is also laying pipelines under North-Eastern Natural Gas Grid project to connect major cities across North-Eastern Region with a gas grid to provide sufficient supply of natural gas. In this scenario, it is essential that along with energy infrastructure the associated safety, security and environment related response system should also be augmented and kept in readiness to meet any emergency.

The Committee observe that during the blow out incident in 2020 in Baghjan, the snubbing units from Canada could not be landed at Guwahati Airport and had to be unloaded at Kolkata Airport which had the required infrastructure and then moved by road which caused avoidable delay. The Committee, therefore, recommend that the Ministry should do comprehensive area survey of the North-Eastern Region and map all the oil and gas fields/installations /units etc. and also the nearest road/ rail/ airport infrastructure available for handling disaster management equipment/machineries required in case of emergency and take coordinated action in association with the Ministries concerned to strengthen the aviation/rail and road infrastructure in the region”.

18. In this regard, the Ministry has submitted the following reply:

“OIL’s Crisis Management Team (CMT) has been strengthened with fire-fighting appliances & equipment which will ensure availability of fire-fighting resources & PPEs like SCBA sets & proximity suits on the central level which will be deployed in the shortest possible time during any major fire or blowout emergencies.

Field Communication Department is developing a system for Quick deployment of communication facilities to the site of crisis/disaster and manage the requirement of the situation in case of any emergency. Every service department is expanding its capability to improve the infrastructure to meet the emergency needs.

An Emergency Response Centre (ERC) is being set up under the aegis of OIL / NRL at a central location (Jorhat town), so as to respond to emergencies at all nearby oil producing installations / Refineries.

Improvement in infrastructure is continuous process. Guwahati Airport is equipped to receive Code-C and D aircraft (A 320 and B737/757). The runway is capable of receiving Code E aircraft with prior intimation of 24 hours. The runway of Dibrugarh Airport has been extended by 461 m from 1829 m to 2290 m for A321 type of

aircraft operations”.

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Comments of the Committee

19. The Committee in their earlier original Report had recommended that the Ministry should do comprehensive area survey of the North-Eastern Region and map all the oil and gas fields/installations /units etc. and also the nearest road/ rail/ airport infrastructure available for handling disaster management equipment/machineries required in case of emergency and take coordinated action in association with the Ministries concerned to strengthen the aviation/rail and road infrastructure in the region.

The Ministry in its written reply has stated that Improvement in infrastructure is a continuous process. Guwahati Airport is equipped to receive Code-C and D aircraft (A 320 and B737/757). The runway is capable of receiving Code E aircraft with prior intimation of 24 hours. The runway of Dibrugarh Airport has been extended by 461 m from 1829 m to 2290 m for A321 type of aircraft operations.

The Committee note that the reply of the Ministry talks about aviation infrastructure alone and is silent on needed improvement in road/rail infrastructure and action taken thereon. The Committee, therefore, reiterate their earlier recommendation that the Ministry should do comprehensive area survey of the North-Eastern Region and map all the oil and gas fields/installations /units etc. and also the nearest road/ rail/ airport infrastructure available for handling disaster management equipment/machineries required in case of emergency and take coordinated action in association with the Ministries concerned to strengthen the aviation/rail and road infrastructure in the region.

Recommendation No. 13

Training for Local Communities

20. The Committee had recommended as under:

“The Committee note that the local communities near to the. oil and gas

fields/units/installations play an important role in the safe and secure functioning of these installations. These are the people who are likely to be affected due to the unforeseen incident/accidents that may happen in these units. So it is very important that local communities and population are made aware of the possible safety related incidents and also the response required in those situations. The Committee also observe that the local communities also step in to help the organizations to respond to the situation and support the operations. In this regard, the Committee desire that a proper structured and formal training module particularly in fire-fighting as well as rescue, first-aid and other such basic safety requirements to the local population could be of immense value and help whenever such emergencies arise.

Therefore, the Committee recommend that the Ministry should persuade all the PSUs to educate and train the local communities in basic safety training requirements and also equip them with basic facilities like fire fighters and fire tenders which can be useful for both the communities and nearby towns as well in meeting the emergency requirements of the organization”.

21. In this regard, the Ministry has submitted the following reply:

“As far as OIL is concerned, Safety awareness programs/campaigns are being conducted for local communities living in the vicinity of oil and gas installations and along the Right of Way (ROW) of pipeline through distribution of safety pamphlets, meetings and screening safety films etc.

As part of Tier-III mock drills carried out with Mutual Aid Partners like District Administration, National Disaster Response Force, CISF, Neighboring industries etc., OIL sensitizes the local communities on action to be taken during disaster. Pamphlets on Do's & Don'ts during emergency drills in vernacular language is also distributed among the locals.

OIL also maintains a well-equipped firefighting facility at Duliajan and Moran, which apart from its internal emergencies, also comes to the aid of nearby communities as part of its community assistance program. Moreover, basic fire-fighting training is imparted to local communities from time to time.

ONGC keeps adequate firefighting infrastructure, equipment and manpower in its operational areas. Assistance is provided to local administration, local population and other industries whenever required in control and mitigating of fire emergencies. Awareness and training programs are being conducted for local communities, schools and colleges. These programs include basic fire safety awareness, practical demonstration of firefighting equipment, first aid trainings, emergency drills, etc”.

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Comments of the Committee

22. The Committee in their original Report had recommended to equip local communities with basic facilities like fire fighters and fire tenders which can be useful for both the communities and nearby towns as well in meeting the emergency requirements of the organization.

The Reply of the Ministry gives details about training programs and emergency drills conducted for local communities but is silent on the facilities made available to local communities.

The Committee, therefore, reiterate their earlier recommendation to equip local communities with basic facilities like fire fighters, fire tenders etc. which could be useful in emergency situations and act as first line of defence and apprise them of contemplated action in this regard.

CHAPTER II

RECOMMENDATIONS/OBSERVATIONS WHICH HAVE BEEN ACCEPTED BY THE GOVERNMENT

Recommendation No. 1

Need for periodic review of Safety Measures in Petroleum Sector

The Committee note that the Indian Petroleum Sector has presence in upstream, midstream and downstream sector including onshore and offshore fields, refineries, several Gas processing plants, Liquefied Natural Gas (LNG) terminals and more than 45,000 kms of crude oil and petroleum product pipelines spread across the length and breadth of the country. The Committee also note that several Acts and Rules govern the safety of oil and gas units and the same are being enforced by agencies under different Ministries of Central and State Governments.

The Committee note that the Oil and Natural Gas Industry process highly inflammable hydrocarbons under high temperature and pressure. Therefore, any accident in the Petroleum and Natural Gas Industry can cause serious outcomes like loss of lives, disruption of activities in the surroundings, huge economic loss and also irreparable damage to the local environment. Hence, the Committee observe that Safety in petroleum sector is of utmost importance and there should be zero tolerance to accidents.

The Committee further recall that many accidents happened in the Oil and Gas sector in the country during the last few years. The Baghjan oil Well blowout in Assam in May-June 2020, sinking of Barge P-305 in Bombay High region in the wake of cyclone Tautkae in May 2021, the blast in the pipeline of GAIL in Nagaram in Andhra Pradesh in 2014 and accident at IOCL facility in Jaipur in 2009 etc., are some of the serious incidents in the last decade for the petroleum industry in the country.

The Committee further note that the Ministry of Petroleum and Natural Gas has constituted a Working Group comprising of industry professionals, legal experts, academics, etc. to look into the whole gamut of safety framework and suggest necessary changes for petroleum sector in the country in response to the recommendations made in this regard by this Committee in their 13th Report (17th

Lok Sabha).

The Committee had examined the circumstances and events leading to leakage of gas and oil condensate from Well No. 5 of Baghjan oil field situated in Tinsukia district of Assam from 27 May 2020 which was followed by fire and blowout of oil Well on 9 June 2020 and handling of the incident subsequently by OIL. The Committee note with concern that the disaster had happened not because of any equipment failure but due to the cumulative effect of human errors during different stages of the workover operations at Baghjan-5. The Committee further note that the disaster had happened due to gross disregard of safety regulations and practices and lack of effective monitoring of workover operations. The serious incidents which happen in the petroleum sector is a cause of concern and that lessons learnt by Oil/PSUS from one incident should prevent of other accidents and should be taken seriously by PSUs. Hence, a comprehensive review of the safety requirements for the entire oil and gas industry has become all the more desirable. The Committee, therefore, recommend that the Ministry should expedite the submission of the Report by the Working Group so that review/updation of safety framework of the petroleum sector of the country may be taken up.

Reply of the Government

A working group constituted by Ministry of Petroleum & Natural Gas, comprising of members drawn from the Oil and Gas Industry (Upstream, Midstream and Downstream), PNGRB, OISD, Academia, Shipping and Fire Services with the scope to review the whole gamut of safety system and suggest necessary changes for Petroleum Sector in India, identify gaps in extant laws and recommend way forward to establish a single safety regulator for petroleum sector. The Working Group is expected to submit its report by August 2023.

Ministry of Petroleum and Natural Gas
O.M. No.Expl-12023(11)/1/2021-EXPL-II-PNG dated 03.07.2023

Recommendation No. 2

Need for promoting safety culture in OIL

The Committee note that in the Baghjan incident, the waiting on cement (WOC) which was 48 hours was compromised by OIL and its officials instructed the crew of M/s John Energy Limited (JEL) to start pull out of the same after 12 hours only in violation of the plans. Moreover, after completion of pull out, the crew of M/s

JEL started removal of Blow out preventer (BOP) to change the well head, even though the cement had not set in and there were no written instructions from OIL which severely compromised the safety of the well, and therefore, appears to be major immediate cause of the incident. The Committee further note that there were serious lapses on the part of contractor M/s JEL in the form of failure to communicate the change of plan to Installation manager, failure-to take prompt action after detecting initial flow of fluid from Well, failure of key persons of the company to remain present at the rig site, poor record- keeping by rig crew, improper BOP testing and drills, inadequate response due to lack of skilled manpower, etc.

The Committee further note that the High-Level Committee which investigated the causes of the incident had observed a number of lapses on the part of OIL also at the planning, execution, organizational and training and accreditation levels. The Committee also note that though MIs JEL was the Contractor in the contract, it was actually acting under close supervision and control of OIL. The representatives of OIL had under the contract the right to observe, test, check and control implementation of workover, testing programmes, equipment and stock, inspect works performed by contractor or examine records kept at Well site by the Contractor. The representatives also had the right to give instructions to the Contractor regarding the workover programme and the Contractor was bound to comply with the same under the provisions of the contract. These lapses on the part of officials of OIL in planning and execution of workover programme at Baghjan-5 have led this Committee to conclude that the safety agencies like Directorate General of Mines Security (DGMS)/ Oil Industry Safety Directorate (OISD) should lay emphasis on strict compliance with laid down procedures for carrying out various operations. Accordingly, the Committee recommend Ministry/OIL/Safety Agencies to put up framework and protocol of accountability to foster and promote a strong safety culture among their officials and employees and of their contractors followed by strict enforcement and encourage them in adhering to the same.

Reply of the Government

OISD lays emphasis on following procedures and OISD standard requirements. This is re-iterated in industry meetings and during audits. Violation of procedures, unsafe acts and unsafe conditions, if any, are observed during audits and through random checking of CCTV footage. From the year 2022-23, OISD has

started organisational audit and safety culture is one of the important elements focused during organisation audit.

OIL has taken steps to address the lapses pointed out by the High-level Committee. Every fortnightly review meeting at corporate office, as well as every weekly review meeting at Field Headquarters (Duliajan) starts with a review of safety activities and initiatives.

OIL has launched Project “KAVACH” which envisions transformational standardisation in Health, Safety & Environment and ESG. The objectives under project KAVACH will be achieved through 10 identified GOALS. Under the said project, Goals pertaining to **promoting Safety Culture** in OIL are as under:

- Strengthening HSE Management Commitment.
- Establishment of Integrated HSE Organization, conduct perception survey, gap analysis, audit universe, asset integrity management etc.
- Benchmarking HSE Parameters with International best practices, implementation of ISO 9001/14001/45001 etc
- Integration of Technology, AI/IOT for improving safety performance and production.

Additionally, some of the safety measures carried out at field level to foster and **promote a strong safety culture** amongst OIL employees are:

- Safety Briefing and Discussion prior to all operational meetings and also at entry points at every installation
- Safety Video circulated on weekly basis across the organization, the same are shown during every safety meeting at pit level, installation level, mine level.
- Job Safety Analysis: It has been ensured for every critical activity to ensure the elimination of hazards and mitigation measures.
- Management of Change has been implemented in line with OISD Guidelines.
- Toolbox Talks: This helps to plan the work in a team, eliminates miscommunication and remove any shortcoming in person or equipment for a specific job and resolve the confusions/ misunderstandings.
- Mock Drills: There is schedule for conducting mock drills with participation of all key personnel and associated employees, including contractor employees.
- Safety Meetings: A platform to raise issues via direct communication.
- Bridging document preparation to define role and responsibility of Contractor and Owners is being followed.

- Guidelines for Stop Work Authority has been introduced.
- Loss Control Tours by Sr. Management have been introduced, as a measure to enhance accountability.

All disciplinary actions and penalty procedure are being taken care through the Company's standing orders, Rules and terms of Contract. To strengthen the same, a **Zero Tolerance Policy** has been prepared and is under review for implementation for strict adherence to the Operational and safety procedures.

Provisions and safety protocol have already been made in the Oil Mines Regulations 2017, (under the Mines Act 1952) for different operations in Oil Mines. The onus lies on the respective oil companies for the compliance of the statute. Directorate General of Mines Safety (DGMS) will enhance efforts for strict compliance of the statutory provisions.

Ministry of Petroleum and Natural Gas
O.M. No.Expl-12023(11)/1/2021-EXPL-II-PNG dated 03.07.2023

Recommendation No. 3

Need for review of Standard Operating Procedures (SOPs)

The Committee note that the High-Level Committee had recommended OIL to develop comprehensive manuals for workover, drilling, production etc. as developed by E&P majors covering all operations in detail, which will be guiding document covering all operations. The Committee further note that the OIL had revised the Standard Operating Procedures (SOPs) of more than 1000 activities in the oil and gas installations. The Committee, however, note that the recommendations of the High-Level Committee regarding development of comprehensive manuals for workover, drilling, production etc. have not been complied yet. Accordingly, this Committee exhort OIL to review its Standard Operating Procedures in the light of practices of international exploration and production majors and case studies of different accidents, faults, problems etc. and develop comprehensive manuals for different operations in a time bound manner which should be periodically reviewed in the light of needs and changing scenario of the industry. The Committee further recommend the Ministry to develop a review system pertaining to safety audit observations and their compliance by all the PSUs concerned in the Safety Council meeting annually.

Reply of the Government

OIL has a sizeable list of Standard Operating Procedures (SoPs). Following the observations of the Hon'ble Committee, all the SOPs of more than 1200 activities in the oil & gas installations have been reviewed, revised and additional relevant clauses have been added for further improvement and operational excellence. Work/Operational Manuals are being prepared / updated by the respective functional authorities.

OISD has issued guidelines on "System of SOPs" and action has been initiated to implement it across the organisation. The guidelines specify review of SoPs every three years. Company wise long pending observations are deliberated and discussed in Safety Council. In addition, issues observed during audits and accident investigation are also deliberated in Safety Council. Based on the recommendation, OISD shall further enhance review system pertaining to safety audit observation & compliance in the Safety Council.

Ministry of Petroleum and Natural Gas
O.M. No.Expl-12023(11)/1/2021-EXPL-II-PNG dated 03.07.2023

Recommendation No. 4

Need for strict action against the Contractor

The Committee note that the lapses and disregard of contractual obligations by the Contractor M/s JEL were major proximate reasons for the Baghjan-5 incident. The main Contractor M/s JEL was put on holiday for a period of two years. However, the contractor went to Guwahati High Court and as per its advice appeared before CGM (C&P) for personal hearing on 01.03.2021. Based on the outcome, the order for holiday/debarment was reviewed and vide Review Order dated 28.04.2021 the holiday period was reduced to 30.04.2021. The Committee further note that OIL imposed certain penalties on the contractor and revoked performance bank guarantee deposited against the contractor. The Committee observed that a drilling rig contract has been awarded to M/s JEL against open tender after the holiday period. The Committee note that the OIL has not utilized the terms of the contract whereby the contractor is liable to bear the entire cost and expenses of killing the Well or otherwise bringing the Well under control and also for indemnifying the company and treated the Contractor with leniency. The Committee, therefore, recommend OIL to take appropriate action against the

Contractor under the provisions of the contract to make it liable for the expenses incurred by OIL in the entire incident.

Reply of the Government

Contractors are penalized for their lapses on the basis of the penalty clauses of the contract.

As far as OIL is concerned, Contract safety management is in place. All the recommendations as per 10th, 11th and 12th Conference on Safety in Mines pertaining to safety of contractor workers have been incorporated as HSE points in the tender document. Bridging documents is in place wherever applicable. Competency criteria for workers are identified and specified in the contract document.

As recommended by the Hon'ble Committee, and after due deliberations internally within OIL, a Legal Notice dated 11.04.2023 demanding compensation of Rs 462 crores (*the expenditure incurred by OIL towards controlling of Blowout and its consequential effects along with interest@12% from the date of blowout*) within 30 days from the receipt of the Notice has been sent to the contractor, John Energy Limited. However, OIL has reserved its right to seek additional compensation in the future depending upon the outcome of the aforesaid civil appeal pending before the Court/ Tribunal. Additionally, OIL has also reserved its right to claim manpower costs which are under the process of calculation for controlling Baghjan blowout. This is without prejudice to OIL's other rights in the matter.

Ministry of Petroleum and Natural Gas
O.M. No.Expl-12023(11)/1/2021-EXPL-II-PNG dated 03.07.2023

Recommendation No. 5

Need for enquiry by the Ministry

The Committee note that three Committees constituted to enquire about Baghjan incident had found a series of lapses on the part of officials of OIL concerned with the planning and execution of workover at Baghjan-5. The Committee further note that the lapses caused great damage to the people and the environment of surrounding areas besides causing huge financial loss. The Committee further note that the crisis management of the incident could have been better. While initially 18 officials were suspended in the wake of disciplinary proceedings, two were found guilty. The Committee observe that fixing of responsibilities in this regard is grossly inadequate to the proportion of damages caused and lapses

committed at procedural levels by the personnel of OIL.

The responsibility of ensuring a safe work procedure vest with Oil PSUs and they need to be accountable. The role of senior officers is more of supervisory nature but the same was missing in this case. Accordingly, this Committee recommend Ministry to institute an enquiry into lack of proper supervision and monitoring in workover programme at Baghjan-5 and fix appropriate responsibility and accountability to bring out any erring and incompetent officials of OIL.

Reply of the Government

A three member High Level Committee was constituted vide this Ministry's order dated 11.06.2020 to enquire into the incident of blow out and fire at Baghjan oilfield. The report of the High Level Committee has been accepted by the Government and OIL was asked to take action on the recommendations of report and also against the officers responsible for lapses. Action has been taken up by OIL to ensure proper safety and security system to avoid repetition of similar incidents in future and majority of the HLC recommendations have been implemented by OIL.

The Government of India had also constituted a five-member committee in compliance of order dated 19.02.2021 passed by the Principal Bench of National Green Tribunal. New Delhi (NGT) in Bonani Kakkar Vis Oil India Limited & Others, Original Application No. 43/2020 (EZ). The recommendations of committee were accepted and forwarded to upstream companies for implementation. OISD monitors the status of implementation of the recommendations of the Committee on quarterly basis and a review meeting is taken by Ministry once in six months with Heads/senior representatives from DGMS, DGH and other major E&P companies (both PSU & private). Safety Council reviews status of implementation of the recommendations of the Committee once every year.

After the incident at Baghjan well No. 5 of M/s Oil India Limited, an inquiry was conducted by the officer of DGMS to ascertain the causes and circumstances that led to the incident. Based on the findings of the inquiry, action has been taken against the persons responsible for the incident.

Prosecution has been initiated against the (i) Nominated Owner of the company (ii) Agent, (iii) Mine Manager, (iv) Deputy Mine Manager, (v) Installation manager, (vi) Chief Engineer – Oil & Gas services M/s OIL (Agent), for the contravention of the provisions of the Mines Act 1952 and Oil Mines Regulation 2017.

Ministry of Petroleum and Natural Gas

O.M. No.Expl-12023(11)/1/2021-EXPL-II-PNG dated 03.07.2023

**Comments of the Committee
(Please see Para No. 7 of Chapter-I)**

Recommendation No. 7

Self Reliance to Tackle Emergency in oil and gas Installations

The Committee note that the safety related incidents in oil Installations can cause severe damage to the installation itself, surrounding areas etc. and with hydrocarbon substances, the risk of fire is very high. Many incidents in the past have caused death of human beings, damage to property and also to environment. The Committee also observe that some of the issues faced by the petroleum sector are very unique like oil well blow out, oil spill in coastal areas, etc. These events need specialized response and many a times it is seen that international experts are engaged, and certain equipment are also brought from abroad to mitigate and handle such incidents. The Committee note that in Baghjan incident, the safety equipment were mobilized from ONGC/OIL in Assam, Vadodara, Ahmedabad, etc. Finally, as these were inadequate, foreign expertise from Singapore were roped in and Snubbing Unit was mobilized from Canada which indicates that the country lacks requisite equipment/technology and skilled expertise in handling such incidents.

While the upstream oil companies in the country may have crisis management teams to handle safety incidents, it is desired that the country should develop capabilities in handling well blow out control and also manufacture associated equipment in the country. The Committee desire that the Ministry and the PSUs should review the response in putting out the blow out in the oil well in Baghjan thoroughly and identify the gaps and try to address all those gaps within the country and collaborate with international agencies to attain self-reliance in these areas. The Committee, therefore, recommend that the Ministry should review the deficiencies and gaps in the safety systems required to fight safety related incidents and take necessary action to create infrastructure and skill sets to deal with them in future. The Committee may be apprised about the action taken within three months.

Reply of the Government

The deficiencies and gaps in the safety system required to fight safety related incidents are being reviewed and necessary actions are being taken. OIL is in the process of developing a full-fledged 'Crisis Management Centre'. E&P operators have been advised to have MOU with the service providers for crisis management.

OISD organizes DMP (Disaster Management Plan) meet with the private oil and

gas companies every year to discuss issues pertaining to DMP of the companies. OISD conducts mock drill during safety audits to check preparedness of crew and emergency system. Deficiencies are observed and brought out in audit report. OISD has taken up relevant standards for revision like OISD-GDN-227(Emergency Response and Preparedness in E&P Industry);OISD-STD-189 (Fire Fighting)& OISD-RP-174 (Well control) with inclusion of offshore operations.

OIL's **Crisis Management Team** (CMT) has identified critical equipment and skills to be enhanced to increase its efficacy. The CMT is being strengthened with adequate manpower and equipment to tackle any emergency. Moreover, various Equipment procurement, Infrastructure enhancement and technological upgradation has already been carried out. Training of personnel in well control is planned to be carried out in cooperation with IDT, ONGC.

OIL entered into an MoU with M/s Cudd Well Control for assistance during critical well control / blowout control event in the oilfields of Oil India Limited. Hiring of one number Snubbing Unit Services for workover operation in Assam & Arunachal Pradesh for a period of three years is under process. Procurement process for OIL's own Snubbing Unit has also been initiated. The unit will generally be used for work over operations; however, it can also be used to control critical well situations.

Following measures are in place in ONGC for handling oil well blow outs/fire accidents /oils spill:

- 1) ONGC is self-reliant and having adequate equipment and expertise to deal with any blow-outs emergencies in onshore and offshore locations. Depending upon the level of emergency in offshore blow-out situations, specialized equipment may be required to be deployed, with assistance from outside agencies.
- 2) ONGC is also in process of upgrading its current Blow-Out Control equipment at its Regional Centres.
- 3) ONGC is having dedicated Crisis Management Teams to control emergency scenarios related to blowout/uncontrolled flow from oil & gas wells and tackle related emergency situations, the teams are based at all work centers with guidance and support from Central Crisis Management Team (CMT) at Vadodara and four Regional CMTs (at Rajahmundry, Vadodara, Mumbai and Sivasagar).
- 4) There is a state of the art training institute at Narsapur, Rajahmundry which caters to the requirement of capacity building in crisis management in blowout scenarios.

- 5) As per the directives of Ministry of Petroleum and Natural Gas, ONGC has planned to set up a state of the art ERC (Emergency Response Centre) at Hazira which will cater to Fire Emergencies and other related incidents which are beyond the control of the installation and district administration. Each ERC shall cater to facilities within the range of about 300 Kms (radius).

Ministry of Petroleum and Natural Gas
O.M. No.Expl-12023(11)/1/2021-EXPL-II-PNG dated 03.07.2023

Recommendation No. 9

Needs for advance Training of employees of OIL

The Committee note that the High-Level Committee constituted to enquire into Baghjan incident mentioned above recommended for mandatory training in Well control for all the key personnel of OIL associated with workover operations and production engineers working in Well Services section like OGPS as many of the key personnel of OIL associated with the workover operation of Baghjan-5 had not been trained in Well intervention.

The Committee further note that the Well control school of OIL had no accreditation for Well control and neither it had dedicated faculty, nor it was properly equipped. The Committee also note that OIL has sponsored 130 employees for various advanced Well control trainings in association with reputed institutes since then and desire that officials of ONGC and private sector should be mandated to train their personnel. The Committee, therefore, recommend OIL to upgrade its Well training schools by equipping them well with dedicated faculty and infrastructure and to undertake the advance training in Well intervention for its remaining key employees associated with workover operations/production engineers. The Committee may also be apprised by OIL about the action taken in this regard.

Reply of the Government

OIL has taken extensive measures to ramp up its training curriculum and coverage.

During the year 2022-2023 OIL has already conducted advanced Safety related training and trained 549 personnel as per OISD Standard 176. The Target for the year 2023-2024 is training of 1,626 personnel as per OISD Std 176.

In addition, OIL has conducted training in (MVT, Firefighting prevention, First Aid, Gas Testing etc.) to Permanent Employees (Executives & Work persons), Contractual employees, apprentices etc. Total number of persons trained (including advanced Safety related training) is 8849 in 2022-23 which is 31.3%

more than 2021-22. With respect to training mandays, the corresponding increase is almost 34%.

Well control training being imparted to Drilling Rig personnel and it will be also extended to workover rig key personnel and production engineers in coordination with IDT ONGC, Dehradun.

In addition, a specialised training on “Basic Life Safety and First Responder” has been introduced for executive as well as employees for personnel safety at their workplaces and emergencies. 2-Day Training Programme on HSE Management System has been organised for key officials working in operational areas for enhancing the awareness on HSE. Advanced firefighting training with live demonstration has been implemented for executives and employees.

Further under Project “KAVACH”, OIL intends to conduct Safety related workshops targeting 10% of the workforce spread across all spheres.

In line with the recommendation of the Hon’ble Committee, efforts to upgrade its well training schools through development of internal faculties as per the IWCF norms is in progress.

ONGC’s Institute of Drilling Technology (IDT) is involved in training and Research and Development activities related to drilling operations. The ‘Well Control School’ (WCS), a part of the IDT, is a premier training establishment to provide skills to drilling crew for handling of critical well control situations. WCS is accredited to the IWCF (International Well Control Forum) Rotary Drilling well control certification program, IWCF Well Intervention Pressure Control certification program and IADC (International Association of Drilling Contractors) certification program at different levels. The institutes provides training to ONGC personnel as well as external candidates.

Ministry of Petroleum and Natural Gas

O.M. No.Expl-12023(11)/1/2021-EXPL-II-PNG dated 03.07.2023

Recommendation No. 12

Emergency Response Centres

The Committee note that the country has many industrial clusters and also in many cities like Mumbai, Vadodara, Vizag, Chennai, Kochi , Guwahati etc. oil and gas installations/Units are found to be concentrated. In addition to these installations and Units, there are several industries operating in their vicinity in these cities. The Committee observe that there was a proposal to establish Emergency Response Centres in some of these cities so as to respond to the safety incidents at short notice in and around these industrial clusters. The Committee also note that the work related to setting up of five ERCs at IOCL

Jaipur, HPCL-Vizag, BPCL-Manmad, ONGC-Hazira, and GAIL-Guna have been progressing.

The Committee observed that a similar facility is required to be set up in Guwahati too. There are several oil and gas related plants/units in and around Guwahati and therefore, the ERC can provide effective crisis management alongwith bolstering the safety infrastructure in North East region. The Committee, therefore, recommend that Ministry should take necessary action for setting up a Emergency Response Centre in Guwahati at the earliest.

Reply of the Government

An Emergency Response Centre (ERC) is being set up under the aegis of OIL / NRL at a central location (Jorhat town), so as to respond to emergencies at all nearby oil producing installations / Refineries. Further, Crisis Management Team (CMT) is being strengthened with adequate manpower and equipment to tackle any emergency. This will act as an Emergency Response Centre for its Field Headquarters / Upper Assam. OIL has also entered into an MoU with M/s Cudd Well Control for assistance during critical well control / blowout control event in the oilfields of Oil India Limited.

For catering to the blowout exigencies and emergencies in North Eastern region, ONGC is already having Regional Crisis Management Team setup at Sivasagr, Assam.

Ministry of Petroleum and Natural Gas
O.M. No.Expl-12023(11)/1/2021-EXPL-II-PNG dated 03.07.2023

Recommendation No. 14

Bio-remediation measures in BAGHJAN site

The Committee note that there were extensive damages to the local environment due to the Baghjan Well blow out incident. Damages to crops, tea estates and vegetation due to spillover of oil condensate were reported. The OIL took up bio-remediation work immediately and appointed TERI for assessment of environmental quality namely water, soil and vegetation in and around Baghjan. The Committee note that TERI has submitted its final assessment on 28.02.2022 . A bio-diversity impact assessment was also carried out by Assam Bio diversity board. Additionally, OIL carried out environmental assessment study by NABL accredited M/s ERM India Pvt Ltd and M/s TERI. The study reports don't show any deviation from prescribed environmental parameters. Further, the Committee note that OIL is carrying out many studies for conservation

management and has also signed an MOU with CPCB for green plantation, etc. The Committee desire that OIL should complete all their assessments and carryout the necessary action without dilution of their commitments towards the environment.

The Committee recommend that the Ministry should regularly review and monitor the progress made by OIL in this regard.

Reply of the Government

The recommendation of the committee is noted for bio-remediation of the Baghjan site. Extensive bio-remediation has already been carried out at site, resulting in vast improvement in the entire are surrounding the site.

The bio-remediation was carried out by assessing the affected area through physical survey, Aerial Survey and sampling and testing procedures.

All the contaminated area in and around Baghjan Plinth #5 was bio remediated by M/s TERI engaged by OIL, who carried out the work in two phases:

- Phase No. I (Pre-Capping of Well) for a total area of 1,60,000 square meters.
- Phase No. II (Post Capping of Well) for a total area of 69,833 square meters.

The further study was also carried out by engaging M/s TERI to assess Environmental Quality of Soil and Vegetation for 2 Km radius from Baghjan Plinth. Based upon the sampling and analysis of soil, water and vegetation sample in surrounding environment including bio-reserve, the said study reveals the absence of significant pollutants in Blowout site area.

The Baghjan-5 plinth has been restored by plantation of 35000 sapling of 55 native's species for creating a dense forest on the plinth in accordance with the MOU signed between OIL and Pollution Control Board, Assam. At present area in and around the Baghjan site is fully restored through natural vegetation.

CHAPTER III

**RECOMMENDATIONS/OBSERVATIONS WHICH THE GOVERNMENT DO
NOT DESIRE TO PURSUE IN VIEW OF THE GOVERNMENT'S REPLIES**

- Nil -

CHAPTER IV

RECOMMENDATIONS/OBSERVATIONS IN RESPECT OF WHICH REPLIES OF THE GOVERNMENT HAVE NOT BEEN ACCEPTED BY THE COMMITTEE

Recommendation No. 6

Need for observance of Environmental Laws

The Committee note that the Justice B.P. Katakey Committee Report had found that, OIL did not have the mandatory clearances under several Acts to operate in the particular well. The Committee further note that the replies of the Ministry and OIL inform that it had mandatory consent to establish or operate under abovementioned laws on the day of the blow out of Baghjan-5 and subsequent fire on 09.06.2020. However, the Ministry have stated that OIL had obtained all mandatory statutory clearances as per the requisite applicable laws.

The Committee note that a number of licenses and approvals are required under various laws pertaining to the mining and protection of environment for exploration and extraction of oil and gas. The Committee further note that these licenses are for a specific period, and they are required to be renewed after the lapse of the same. If these were to be reviewed by Directorate General of Hydrocarbons (DGH)/Ministry of Petroleum and Natural Gas from time to time, such lapses could have been noticed. There is need to institutionalise such a mechanism. The Committee, therefore, recommend the Ministry of Petroleum and Natural Gas to take up the issue with all the PSUs and review the compliance of all applicable laws in the oil and gas fields that are currently in operation. Action taken in this regard may be intimated within three months.

Reply of the Government

The checklist for carrying out OISD external safety audit also includes compliance of environmental requirements. Checklist shall be further reviewed to make it more inclusive of the requirements. OISD is also revising standard OISD-RP-201 on 'Environment Management in E&P sector' with extended scope to cover entire oil & gas industry.

As far as OIL is concerned, it routinely obtains, monitors and renews regulatory clearances (e.g., forest clearance, environment clearances, CTO, CTE, etc.) for all of its operations and installations. All essential conditions stipulated in such clearances are also followed.

In addition to the above measures, it may be pertinent to mention that recently on the environmental front, OIL has included ESG activities under project “KAVACH”, with objectives of meeting following targets.

- OIL to be net zero by 2040.
- Emission reduction of 45% from 2005 level by 2030.
- Develop Strategy & Policy to fulfil National & Global Standards.
- Adoption of Alternative Cleaner Fuels in its Operations.
- Focus on Energy Efficiency.
- Focus on CCUS, Flare reduction.
- Offset Mechanism & Green Energy (Biofuel, Green Hydrogen, Renewables), carbon credits etc.

ONGC complies with applicable laws, rules/ regulations and guidelines in the oil and gas fields. Compliance of these is regularly checked by the Regulatory/Competent authorities during regular External Safety Audits/ Inspections. Compliance is also checked during the Internal Safety Audits, carried by Multi- Disciplinary Teams of ONGC officials. It is ensured that action is taken on the audit observations at earliest. Compliance status of observations is monitored at Highest Level of Management. Action taken on the observations is also submitted to the concerned Regulatory/Competent authorities.

Ministry of Petroleum and Natural Gas

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**Comments of the Committee
(Please see Para No. 10 of Chapter-I)**

Recommendation No. 10

Restructuring HSE Management System by Oil PSU's

The Committee note that a series of lapses at the planning and execution level caused the Baghjan-5 incident. The Committee further note that the justice Katake Committee had observed that OIL did not have the mandatory consent to establish or operate under various environmental laws on the day of Blow out incident at of Baghjan-5 i.e. 9" June, 2020. These lapses and disregard of environmental laws have led this Committee to conclude that the monitoring from higher level functionaries of OIL was weak. The Committee desire OIL to introduce an IT-enabled system to Drilling, Workover and Production operations to ensure availability of real-time information on critical Well operations to key

personnel and senior management for strengthening of Oil Well Services. Accordingly, the Committee recommend OIL to increase the frequency of meetings of Health Safety Environment (HSE) sub Committee and also strengthen its HSE management system in the light of lessons drawn from Baghjan-5 incident and other incidents in the upstream sector. The Committee further feel that the current safety structure may need review as the HSE Officials in PSU organizations report to their top management and hence could be under pressure to allow violations/ be indifferent to complete the work on time. Therefore, the Committee recommend that the Ministry/DGH and the safety agencies like OISD/DGMS to review the existing structure and implement a mechanism by which the safety functions are headed by officials from other PSUs to ensure reasonable autonomy to the safety functionaries and help in developing a strong safety culture in the organization.

Reply of the Government

HSE management system of OIL has been reviewed and approved by the respective Head of Fields. The OIL HSE Management System (HSE-MS) is to provide the framework and structure for the delivery of the highest level of HSE Performance in accordance with the best exploration, production, and transportation practice.

It is a dynamic system, and the HSE-MS will continually evolve to respond to changing needs and emerging operational requirements as the Mines/ Departments is going through a period of transition.

Amongst the various documents in the HSE management system, the HSE-MS manual is the most important and essential document. The specific purpose of the Manual is to document the core elements of the HSE management system, their relationship and interaction.

The OIL HSE Management System is integrated into the overall management system. HSE Management System cuts across the functional boundaries of different departments and installations/facilities and is managed in an integrated and coordinated way.

Project KAVACH envisages to further reinforce transformational standardization of HSE Organization and Management System through Establishment of Integrated HSE Organization, conducting perception survey and gap analysis.

High Level Committee in Baghjan Accident, had advised for strengthening of HSE functioning by recommending for direct reporting of Chief HSE to CMD. In compliance to the recommendation, ONGC has changed the reporting structure of Chief HSE, from Director-I/c to Chairman & CEO.

Ministry of Petroleum and Natural Gas
O.M. No.Expl-12023(11)/1/2021-EXPL-II-PNG dated 03.07.2023

Comments of the Committee
(Please see Para No. 16 of Chapter-I)

Recommendation No. 11

Strengthening of Infrastructure near Oil Installations

The Committee note that there are many oil and gas Installations in the North East and several new projects are being undertaken. The Committee observe that North East region including Assam and Tripura has got oil and gas fields, refinery in Assam, LPG bottling plants and city gas distribution pipelines. Indradhanush Gas Grid Ltd. (IGGL) is also laying pipelines under North-Eastern Natural Gas Grid project to connect major cities across North-Eastern Region with a gas grid to provide sufficient supply of natural gas. In this scenario, it is essential that along with energy infrastructure the associated safety, security and environment related response system should also be augmented and kept in readiness to meet any emergency. The Committee observe that during the blow out incident in 2020 in Baghjan, the snubbing units from Canada could not be landed at Guwahati Airport and had to be unloaded at Kolkata Airport which had the required infrastructure and then moved by road which caused avoidable delay. The Committee, therefore, recommend that the Ministry should do comprehensive area survey of the North-Eastern Region and map all the oil and gas fields/installations /units etc. and also the nearest road/ rail/ airport infrastructure available for handling disaster management equipment/machineries required in case of emergency and take coordinated action in association with the Ministries concerned to strengthen the aviation/rail and road infrastructure in the region.

Reply of the Government

OIL's **Crisis Management Team** (CMT) has been strengthened with fire-fighting appliances & equipment which will ensure availability of fire-fighting resources & PPEs like SCBA sets & proximity suits on the central level which will be deployed in the shortest possible time during any major fire or blowout emergencies.

Field Communication Department is developing a system for Quick deployment of communication facilities to the site of crisis/disaster and manage the requirement of the situation in case of any emergency. Every service department is expanding its capability to improve the infrastructure to meet the emergency needs.

An Emergency Response Centre (ERC) is being set up under the aegis of OIL / NRL at a central location (Jorhat town), so as to respond to emergencies at all nearby oil producing installations / Refineries.

Improvement in infrastructure is continuous process. Guwahati Airport is equipped to receive Code-C and D aircraft (A 320 and B737/757). The runway is capable of receiving Code E aircraft with prior intimation of 24 hours. The runway of Dibrugarh Airport has been extended by 461 m from 1829 m to 2290 m for A321 type of aircraft operations.

Ministry of Petroleum and Natural Gas
O.M. No.Expl-12023(11)/1/2021-EXPL-II-PNG dated 03.07.2023

Comments of the Committee
(Please see Para No. 19 of Chapter-I)

Recommendation No. 13

Training for Local Communities

The Committee note that the local communities near to the oil and gas fields/units/installations play an important role in the safe and secure functioning of these installations. These are the people who are likely to be affected due to the unforeseen incident/accidents that may happen in these units. So it is very important that local communities and population are made aware of the possible safety related incidents and also the response required in those situations. The Committee also observe that the local communities also step in to help the organizations to respond to the situation and support the operations. In this regard, the Committee desire that a proper structured and formal training module particularly in fire-fighting as well as rescue, first-aid and other such basic safety requirements to the local population could be of immense value and help whenever such emergencies arise.

Therefore, the Committee recommend that the Ministry should persuade all the PSUs to educate and train the local communities in basic safety training requirements and also equip them with basic facilities like fire fighters and fire tenders which can be useful for both the communities and nearby towns as well in meeting the emergency requirements of the organization.

Reply of the Government

As far as OIL is concerned, Safety awareness programs/campaigns are being conducted for local communities living in the vicinity of oil and gas installations and along the Right of Way (ROW) of pipeline through distribution of safety pamphlets, meetings and screening safety films etc.

As part of Tier-III mock drills carried out with Mutual Aid Partners like District Administration, National Disaster Response Force, CISF, Neighboring industries etc., OIL sensitizes the local communities on action to be taken during disaster. Pamphlets on Do's & Don'ts during emergency drills in vernacular language is also distributed among the locals.

OIL also maintains a well-equipped firefighting facility at Duliajan and Moran, which apart from its internal emergencies, also comes to the aid of nearby communities as part of its community assistance program. Moreover, basic fire-fighting training is imparted to local communities from time to time.

ONGC keeps adequate firefighting infrastructure, equipment and manpower in its operational areas. Assistance is provided to local administration, local population and other industries whenever required in control and mitigating of fire emergencies. Awareness and training programs are being conducted for local communities, schools and colleges. These programs include basic fire safety awareness, practical demonstration of firefighting equipment, first aid trainings, emergency drills, etc.

Ministry of Petroleum and Natural Gas

O.M. No.Expl-12023(11)/1/2021-EXPL-II-PNG dated 03.07.2023

**Comments of the Committee
(Please see Para No. 22 of Chapter-I)**

CHAPTER V

RECOMMENDATIONS/OBSERVATIONS IN RESPECT OF WHICH FINAL REPLIES OF THE GOVERNMENT ARE STILL AWAITED

Recommendation No. 8

Need for Single Safety Agency for Petroleum Sector

The Committee note that the Oil and Gas sector is being regulated by many agencies like Directorate General of Mines Safety (DGMS), Petroleum and Explosives Safety Organisation (PESO), Oil Industry Safety Directorate (OISD), Petroleum & Natural Gas Regulatory Board (PNGRB), Directorate General of Shipping (DGS), Fire Departments and Lifts Departments from State Governments, etc., for different activities in the petroleum sector. One of the safety enforcement agencies in the Ministry of Petroleum & Natural Gas is OISD, but it has no statutory powers as it is only a technical directorate, and all its officials are on deputation. Since many agencies are performing focused and limited role in enforcing the rules and regulations under the laws mandated to them, a holistic approach is missing for the sector. Many a time the gaps in legislation is also not noticed as many regulators are busy enforcing their mandate alone.

The Committee further note that they had vide their recommendation No. 3, in their Report No. 12 (15th Lok Sabha) and recommendation No. 10, in their Report No. 24 (16th Lok Sabha) and recommendation No. 5 in their Report No. 13 (17th Lok Sabha) recommended for formation of single agency to enforce safety related rules and regulations in the petroleum sector. The Committee also note that the High-Level Committee (HLC) constituted by the Government of India to enquire into the sequence of events leading to stranding of vessels and accident after the Cyclone Tauktae had also concluded that the Government consider setting up a single statutory regulator for exercising effective oversight on safety aspects of all onshore and offshore oil fields.

This Committee reiterate their earlier recommendation for a single safety agency for oil and gas sector and expect the Ministry to implement the same for ensuring the safety culture in Oil PSUs and regulating agencies. A weak safety framework is detrimental to not only general public but also to the oil companies. The accidents besides derailing their normal activities, lower confidence of the public and investors. Therefore, formation of a single regulatory authority for the oil and gas sector is a requirement of the time in the interest of the industry. Accordingly,

this Committee again recommend to the Ministry of Petroleum & Natural Gas to undertake serious deliberations and take effective steps towards formation of single regulatory body for oil and gas industry.

Reply of the Government

A working group has been constituted by Ministry of Petroleum & Natural Gas, comprising of members drawn from the Oil and Gas Industry (Upstream, Midstream and Downstream), PNGRB, OISD, Academia, Shipping and Fire Services with the scope to review the whole gamut of safety system and suggest necessary changes for Petroleum Sector in India, identify gaps in extant laws and recommend way forward to establish single safety regulator for petroleum sector. The Working Group is expected to submit its report by August 2023.

Ministry of Petroleum and Natural Gas

O.M. No.Expl-12023(11)/1/2021-EXPL-II-PNG dated 03.07.2023

Comments of the Committee
(Please see Para No. 13 of Chapter-I)

New Delhi;
04 August, 2023
13 Shravana,1945 (Saka)

RAMESH BIDHURI,

Chairperson,
Standing Committee on
Petroleum & Natural Gas.

MINUTES
STANDING COMMITTEE ON PETROLEUM AND NATURAL GAS
(2022-23)
SIXTEENTH SITTING
(04.08.2023)

The Committee sat on Friday, the 04th August, 2023 from 1500 hrs. to 1640 hrs. in Main Committee Room, Parliament House Annexe (PHA), New Delhi.

PRESENT

Shri Ramesh Bidhuri - Chairperson

MEMBERS

LOK SABHA

Shri Ramesh Bidhuri- Chairperson

- 2 Shri Ramesh Chand Bind
- 3 Shri Pradyut Bordoloi
- 4 Smt. Chinta Anuradha
- 5 Shri Dilip Saikia
- 6 Dr. Kalanidhi Veeraswamy
- 7 Shri Chandra Sekhar Sahu
- 8 Dr. Bharatiben Dhirubhai Shiyal
- 9 Shri Lallu Singh
- 10 Shri Vinod Kumar Sonkar
- 11 Shri Ajay Tamta

RAJYA SABHA

- 12 Shri Shaktisinh Gohil
- 13 Smt. Kanta Kardam
- 14 Shri Mithlesh Kumar
- 15 Shri Rambhai Harjibhai Mokariya
- 16 Dr. Sasmit Patra
- 17 Dr. V. Sivadasan
- 18 Shri Ravichandra Vaddiraju

SECRETARIAT

1. Shri Y. M. Kandpal - Joint Secretary
2. Shri H. Ram Prakash - Director
3. Shri Brajesh Kumar Singh - Deputy Secretary

2. XXXX XXXX XXXX XXXX
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3. The Committee then took up for consideration the draft Action Taken Report on the recommendations contained in the Nineteenth Report (17th Lok

Sabha) on the subject '**Safety and Security of Oil Installations of Public Sector Oil Companies with Specific Reference to Baghjan Blow-out incident**' of MoP&NG' and adopted the same without any modifications.

The Committee then authorised the Chairperson to present/lay the reports in both the Houses of Parliament.

The Committee then adjourned

Annexure II

(Vide Para 4 of the Introduction)
ANALYSIS OF THE ACTION TAKEN BY THE GOVERNMENT ON THE RECOMMENDATIONS CONTAINED IN THE NINETEENTH REPORT (SEVENTEENTH LOK SABHA) OF THE STANDING COMMITTEE ON PETROLEUM AND NATURAL GAS (2022-23) ON THE SUBJECT 'SAFETY AND SECURITY OF OIL INSTALLATIONS OF PUBLIC SECTOR OIL COMPANIES WITH SPECIFIC REFERENCE TO BAGHJAN BLOW-OUT INCIDENT'.

I	<u>Total No. of Recommendations</u>	14
II	Recommendations/Observations which have been accepted by the Government (<i>Vide</i> Recommendations Nos. 1, 2, 3, 4, 5, 7, 9, 12, and 14)	9
	Percentage to Total	64.30%
III	Recommendations/Observations which the Committee do not desire to pursue in view of Government's (<i>Vide</i> Recommendations No. Nil)	00
	Percentage of Total	00
IV	Recommendations/Observations in respect of which replies of the Government have not been accepted by the Committee (<i>Vide</i> Recommendations Nos. 6, 10, 11 and 13)	04
	Percentage of Total	28.60%
V	Recommendations/Observations in respect of which final replies of the Government are still awaited (<i>Vide</i> Recommendation No. 8)	01
	Percentage of Total	7.10%