

भारत सरकार (GOVERNMENT OF INDIA)  
रेल मंत्रालय (MINISTRY OF RAILWAYS)  
रेलवे बोर्ड (RAILWAY BOARD)

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No.2021/M(C)/165/2\_PAC

New Delhi, Date: 02.06.2022

PCMEs  
All ZRs

PCMEs  
ICF, MCF, RCF

PCME  
COFMOW

PED  
CAMTech

ED(S)/Carriage  
RDSO

Sub.: Meeting of Public Accounts Committee (PAC) on CAG's report no. 36 of 2017.

Ref.: List of discussion Points for meeting of Public Accounts Committee (PAC) on the subject of "Induction of bio-toilets in Passenger Coaches in IR", based on CAG's Report (copy enclosed).

Reference above, it is requested to examine/review the above referred discussion points (enclosed) and **furnish the approved para-wise reply/comments/action** taken to Board's office within two weeks of the issue of this letter.

The reply may be sent through e-mail at <ddmcrb@gmail.com>

May please treat the matter as urgent.

*Ravi*  
21/6/22

(Ravi Jain)  
Exec.Dir.Mech.Engg.(Chg.)  
Railway Board

Enclosed: List of discussion points as referred above

Copy to:

- EDME(EnHM & Project)/Rly.Bd. - For kind inf. please.

**List of discussion Points for meeting of Public Accounts Committee (PAC)  
on the subject of "Induction of bio-toilets in Passenger Coaches in IR" based on  
CAG's Report No. 36 of 2017**

Para Ref. No.	PAC's points of discussion	To be replied by
P1.4	<p>As of March 2017, the design and development of bio-tanks was yet to be finalized for BEML coaches, coaches of tourist trains like Maharaja Express and Deccan Odyssey, SLRs/Railway Administration coaches, MEMU/TC, retrofitment of LHB coaches and LHB Double decker coaches, DEMU and DHMU, and retrofitment of ICF types coaches fitted with CBC and CDTs.</p> <p>Ministry of Railways replied that 99.3 per cent of the entire fleet had been covered with bio-toilets. Some specially designed coaches were remaining. These coaches require customization and modification of bio-toilets. Zonal Railways were undertaking the work of installation of bio-toilets in remaining coaches also. The design of bio-tanks (S trap) in all trains has been finalized and fitted in all running coaches.</p>	RDSO
1.	<b>What is the present status of finalisation of design and development of bio-toilets for various kinds of coaches in Indian Railways? Whether the standardised design of bio-toilets with S-trap with 100 mm pan dia have undergone any further changes? If yes, which design has been standardised at present?</b>	
P2.1	<p>Audit noted that different variants of bio-toilets were installed in seven trains on a trial basis during January 2011 to April 2012. However, before the test results in respect of these rakes could be analysed, IR decided to undertake large scale proliferation of 10,000 bio-toilets in passenger coaches in November 2011.</p> <p>As per the reply of Ministry of Railways, this was a considered decision of JWG, taken after reviewing, analysing, examining, and considering bio-toilets' in-service performance for about 10 months since their induction in passenger services.</p> <p>Further it was stated in the reply that the decision of large-scale proliferation was reviewed and confirmed again and again in the forthcoming meetings of JWG, based on performance analysis of more bio-digester tanks fitted in coaches of different rakes during the period. The design of bio-tanks (S trap) has been finalised.</p> <p>However, Audit has stated that it was seen that details of feedback of performance of bio-toilets fitted in coaches were not documented/ maintained and reported to Research, Design and Standards Organisation (ROSO) in the prescribed manner by any of the nominated Zonal Railways except NCR.</p>	RDSO All ZRs
2.	<b>Why were details of performance of bio-toilets not documented and on what basis were these finalised?</b>	
P2.3	<p>Against a target of turning out 100 per cent passenger coaches with bio-toilets, three Production Units in IR turned out 5.7 per cent coaches without bio-toilets in 2016-17. Linke Hofmann Busch (LHB) coaches were also turned out without bio-toilets in 2016-17 to the extent of 6.7 percent.</p> <p>Ministry of Railways replied that due to short supply of material from trade and design issues, some coaches were turned out without bio-toilets by Production Units (PUs). Subsequently, these coaches were fitted with bio-toilet by Zonal Railways. PUs were now turning out 100 per cent coaches fitted with bio-toilets.</p>	ICF MCF RCF
3.	<b>(a) What is the status of turning out of bio-toilets in new coaches by Production Units in the current year so far?</b>	
	<b>(b) What efforts are being made to keep the production at the maximum level?</b>	

P2.4	<p>The percentage utilisation of funds allotted for retrofitment of bio-toilets remained between 34 per cent and 71 per cent during 2014-15 to 2016-17. For the year 2016-17, Minister of Railways announced a target of induction of 30,000 bio-toilets, of which 20,000 bio-toilets were to be inducted through retrofitment. Railway Board fixed an internal target of induction of 60,000 bio-toilets during 2016-17, of which target for retrofitment was 50,000. As against the target of 20,000 bio-toilets and internal target of 50,000 bio-toilets, various Zonal Railways could achieve induction of 22,198 bio-toilets through retrofitment.</p> <p>As per reply of the Ministry of Railways, Zonal Railways were provided the funds more than the requirement so that shortage of funds should not become a constraint for the installation of bio-toilets.</p>	All ZRs
4.	<p><b>What reasons do you account for lower utilization of funds towards retrofitment of bio-toilets despite being provided more funds than required?</b></p>	
5.	<p><b>What is the present status of supply of bio-tanks by vendors vis-à-vis requirement of Indian railways?</b></p>	
P2.4.2	<p>In 2016-17, as against a target of 16,800 bio-toilets for retrofitment during periodical overhaul in Carriage Workshops, various Zonal Railways could induct 12,828 bio-toilets. Due to delays in procurement of bio-tanks, bio-toilets could not be fitted in coaches as targeted.</p> <p>Ministry of Railways replied that Retro-fitment in coaches by Zonal Railways is carried out in carriage workshops/open-lines/coaching depots. The targets were given collectively for carriage workshops/open-lines/coaching depots and not only for POH workshops. The target of 16800 in 2016-17 was not only for POH workshops but also for POH workshops and for open-lines/coaching depots. This target was surpassed and about 19500 bio-toilets were fitted by Zonal Railways.</p> <p>It was also stated in the reply that after streamlining the supply of material further, Zonal Railways had been able to install approximately 44400 bio-toilets in 2017-18, which was more than double the actual fitment made during 2016-17.</p>	All ZRs
6.	<p><b>What is the current status of the supply of bio-tanks by vendors and retrofitment of bio-toilets during periodical overhaul in Carriage Workshops in various Zonal Railways?</b></p>	
7.	<p><b>What were the year wise targets and achievements with respect to retrofitment in coaches by Zonal Railways?</b></p>	
8.	<p>During the joint inspections of the nominated Green Train Stations and Green Corridors, it was inter-alia observed that Porbandar station coach No.920040, 920058 and 940082 of Train No.19216 Porbandar to Mumbai Central, Saurashtra Express were found being run only with conventional toilets. Further, several bio-toilets in trains remained in bypassed position without being set right for repeated trips on the Green Corridor.</p>	WR All ZRs
	<p><b>Whether the conventional toilets have since been converted into bio-toilets? What is the current status? How does the Ministry ensure that such instances do not recur and that bio-toilets are maintained regularly for each trip?</b></p>	
P2.5	<p>The concept of Green Train Station and Green Corridors was introduced by IR. In Green Train Stations, all the originating, terminating, bypassing and platform return trains were required to have 100 per cent bio-toilet fitted coaches. The tracks on the Green Corridor were also to be made free from human waste discharge. However, the nominated stations and corridors did not adhere to these conditions.</p> <p>As per reply of the Ministry of Railways, the Railway Board had identified certain selected sections (not the stations) for commissioning as Green Corridors, free from human waste discharge from trains. Zonal Railways had been advised to ensure that only bio-toilet fitted coaches are permitted on the Green corridors. Further, it was also stated in the reply that the work of provision of bio-toilets in the coaches is targeted for completion by FY 2018-19, after which all sections would automatically get converted to Green Corridors.</p>	All ZRs

9.	Which were the zones identified by the Railway Board for commissioning of Green Corridors? Has the work been accomplished by now?	All ZRs
10.	Whether the work of provision of bio-toilets in the coaches was actually completed by FY 2018-19? What is the current status?	
P3.1.1.2	<p>Due to inadequate progress of retrofitment of bio-toilets in passenger coaches by Zonal Railways, Railway Board decided to place bulk order for supply, installation and commissioning of approximately 80,000 bio-toilets in in-service coaches. Out of the nine firms on which orders were placed by Railway Board, seven firms, had complaints pending against them regarding quantity and quality of material supplied against Purchase Orders placed by the Zonal Railways during 2015-16 and 2016-17. As against 33,783 bio-toilets which were to be supplied to 16 Zonal Railways up to March 2017, only 14,274 bio-toilets were supplied by the firms. Out of these, 12,016 bio-toilets were fitted in coaches up to March 2017</p> <p>Ministry of Railways replied that the Initial target to fit bio-toilets in all coaches was 2021-22 and the capacity of industries was available for this target. With the revised target of 2019 the manufacturers were encouraged to augment their capacity. Although during 2015-16 and 2016-17 quantity could not be supplied to Zonal Railways but there was positive output by vendors during 2017-18. The supply and fitment of bio-tanks during 2017-18 was approximately 57,000. The target was expected to be completed by FY 2019. Firms found to be defaulters were removed from the approved vendor directory. Further, it was also stated in the reply that evaluation of performance was done continuously.</p>	All ZRs ICF MCF RCF
11.	Whether there are adequate number of vendors who have the capability to supply bio-tanks and install and commission them, as per the requirement of Indian Railways?	
12.	What is the performance of the bio-toilets procured from these vendors through bulk orders?	
13.	What is the mechanism in place to monitor the quality of bio-tanks supplied by these vendors?	
14.	Out of the bulk order of 80,000 bio-toilets, what is the present status of supply and retrofitment of bio-toilets in various Zonal Railways?	
15.	Whether the target was completed by Financial Year 2019 as envisaged?	
	<p>During the check of records of Divisional Mechanical departments of Mumbai and Solapur, it was noticed that there were 18 complaints pertaining to Solapur division for the period April 2015 to July 2015 and 148 complaints pertaining to Mumbai division for the period August 2014 to October 2016, regarding defects in bio-toilets under the warranty period. Online complaints were registered by Railway Administration on ICF/RCF portal. However, no action was taken by ICF, RDSO and concerned firms for rectification of defective bio-toilets. CR Administration in their reply stated that RCF and ICF were required to pursue the matter with vendors for attending the warranty issues and impose warranty claims, if defects were not attended in time. The defective coaches were not detached from the rake, but were allowed to run with temporary attention.</p>	CR ICF RCF All ZRs MCF
16.	What is the complaints redressal mechanism for rectification of defective bio-toilets? How many complaints have been received so far and how many have been redressed	
17.	Is there any provision for penalty for not repairing bio-toilets under warranty? If so, how many such cases have come to your notice so far?	

<p>P3.2 P3.3</p>	<p>Adequate storage space for bio-tanks and bacteria inoculums and other infrastructure facilities such as hydraulic/forklifts, ramps for loading/unloading of bio-tanks, evacuation systems, bio-toilet aprons etc. were not available in most of the selected Carriage Workshops of various Zonal Railways. Inadequate supply/quality of supply of bacteria inoculum was also a constraint and installation/augmentation of bacteria generation facility in SECR, ECoR and ECR needed to be geared up.</p> <p>As per reply of the Ministry of Railways, the basic facilities required for bio-toilets in workshops and coaching depots were available and were being augmented as per the requirement. Centralised Purchase Orders were placed for 64 sewage evacuation machines and further procurement of 372 more machines was under process. Further, it was also stated in the reply that besides DRDO's approved suppliers, IR had two Bacteria Generation Plants in Moti Bagh workshop of SECR at Nagpur and Mancheswar workshop of ECoR at Bhubaneswar. Setting up the plant at Rajendra Nagar Coaching Complex (RNCC) in ECR was under process.</p>	<p>All ZRs COFMOW SECR ECoR ECR</p>
<p>18.</p>	<p><b>What action has been taken for provision of adequate storage space for bio-tanks and bacteria inoculum and other infrastructure facilities in various Carriage Workshops of Indian railways, where retrofitment is done? Please also provide the status of supply of bacteria inoculum and provision of infrastructure facilities such as hydraulic/forklifts, ramps for loading/unloading of bio-tanks, evacuation systems, bio-toilet aprons etc. for various Carriage Workshops of all Zonal Railways may be provided.</b></p>	
<p>P4.1.1 P4.1.2</p>	<p>Analysis of data on instances of defects/problems such as choking/foul smell, non-availability of dust-bins, and mugs etc. in 15 Zonal Railways in selected 30 Coaching Depots for 2016-17 showed that out of 613 trains being handled in these Coaching Depots, 160 trains did not have any bio-toilets fitted. In remaining 453 trains having 25080 bio-toilets (either full complement or partial), 199689 instances of deficiencies /complaints were noticed. There was an increase in cases of choking per bio-toilet in the year 2016-17 as compared to 2015-16. Non-availability of evacuation machines led to difficulties in removing biodegradable waste from the bio-tanks. Annual Maintenance and Operating Contracts were yet to be awarded in 12 Coaching Depots of nine Zonal Railways. Instructions regarding storage and handling of bacteria inoculum and use of cleaning agents were not being followed properly by the Coaching depots.</p> <p>Actions had been taken to overcome the problem of choking/foul smell: (i) provision of S-trap in place of P-trap to maintain the water curtain, (ii) provision of improved flushing, (iii) provision of dust bins was being ensured - approx. 65 per cent of coach lavatories fitted with bio-toilets had been provided with dust bins, (iv) provision of ventilation, (v) OBHS staff was being trained for proper upkeep of bio-toilets during the run, (vi) passengers awareness about DO's and DON'Ts for bio-toilets was being created, (vii) maintenance staff of bio-toilets and concerned staff was being trained to ensure the proper functioning of bio-toilets. Further, it also stated that procurement of Sewage Evacuation Machines was under process.</p> <p>Regarding Annual Maintenance and Operating Contracts AMOCs, 70 per cent of coaching depots were covered under AMOC for maintenance of bio-toilets. Zonal Railways were extending the AMOCs to remaining coaching depots progressively. Zonal Railways had already been advised to comply with available instructions for proper storage/handling of bacteria and use of specified cleaning agents.</p>	<p>All ZRs COFMOW</p>



<b>19.</b>	<b>What is the status of Annual Maintenance and Operating Contracts (AMOCs) in various Coaching Depots of all Zonal Railways?</b>	<b>All ZRs</b>
<b>P4.3</b> <b>P4.4</b>	<p>Para 4.3 - Only 36.62 per cent Supervisory and 23.21 per cent non-Supervisory staff were trained in maintenance of bio-toilets, since May 2013, when the orders for imparting training were issued.</p> <p>As per reply of the Ministry of Railways, a special training module on bio-toilet system had been started in Center for Advance Maintenance Technology (CAMTECH), Gwalior. Majority of the supervisory and non-supervisory staffs involved in maintenance of Bio-toilets had been trained and continuous training was being imparted. The training had been started at Zonal Railways and depot level also.</p> <p>Para 4.4 - None of the Zonal Railway except Southern Railway conducted any specific Passenger Awareness Drive to educate the public by distributing pamphlets, making announcements or arranging display on display boards/LED screens.</p> <p>Ministry of Railways replied that regular passenger awareness drives were being conducted to sensitize the passengers about proper usage and precautions relating to bio-toilets. General Managers of all Zonal Railways had been advised to take up vigorous Public Awareness Campaign.</p>	<b>All ZRs</b> <b>CAMTech</b>
<b>20.</b>	<b>What action is being taken by various Zonal Railways to organize Passenger Awareness Drives to make passengers aware about the importance and use of bio-toilets?</b>	<b>All ZRs</b>

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