

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

दिनांक/Date: 31.12.2019

स/No. Track/21/2004/0902/7 Vol. II

PCEs, All Indian Railways;
CAOs, All Indian Railways.

विषय/Sub: Outsourcing of USFD testing of rails- Manually.

संदर्भ/Ref: 1. Board's Letter No.Track/21/2004/0902/7 dated 12.03.2009. ✓
2. Board's letter No. Track/21/2004/0902/7/Pt. dt. 08.02.2012. ✓
3. Board's letter No. Track/21/2004/0902/7 dated 26.03.2014. ✓
4. Board's letter No.2017/Track-P/9(2) Vol. III dated 07.03.2019. ✓
5. Board's letter No. Track/21/2004/0902/7 Vol-II dt 18.04.2019. ✓
6. Board's letter No.2018/Track-I/11/1/AT Welding Vol.-I dated 03.06.2019. ✓

Instructions regarding outsourcing of USFD testing of rails and AT welds have been issued by Board from time to time. The important instructions on the subject have been issued vide letters under references.

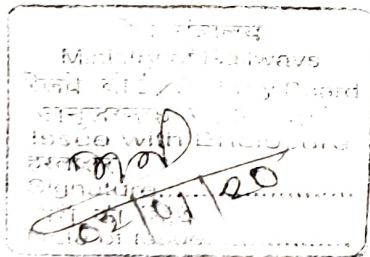
In order to bring clarity on the subject, a gist of these important instructions are given as under:

1. Efforts should be directed towards restricting the outsourcing of USFD activity to 20% (maximum) of the total annual workload (of Zonal Railway) and the remaining USFD testing workload is to be met by departmental infrastructure. **"USFD tender should only be called from the Headquarters and not from the Divisions."**
2. Railway should make all out efforts to strengthen the in-house capabilities of USFD testing so that bare minimum quantity of USFD testing is outsourced.
3. For outsourcing of USFD testing, tenders for preferably **2-3 years** should be invited keeping in view local site and working conditions.
4. Maximum delay permitted in testing of a section after it has become due for USFD testing is 25% of frequency of testing of that section or one month whichever is earlier. For further delay, penalty of Rs.1000/- per km. per day will be levied on the contractor.
5. Test check of 5% by railway should be carried out within 25% time period frequency of USFD testing in that section or one month whichever is earlier.

in test check provisions if any new flaw is detected which was left out by the contractor during testing, the whole length of track (Track length of 50 kms.) will have to be tested again by the contractor without getting any extra payment for the same. M&C Directorate of RDSO shall act as third party to investigate whether the defect was detectable at the time of USFD testing or not. The decision of RDSO shall be final and binding on both the parties and this decision is not arbitrable.

6. Railway personnel deputed along with the contractor's USFD team should jointly sign daily progress report of USFD testing with operator of the contractor.
7. For contracts for works tender related to "USFD Testing of Rails/Welds by SRT/DRT/Handheld Testers" whose technical capabilities have already been established by RDSO, Board (ME & FC) have decided to dispense with the Minimum Technical Eligibility Criteria mentioned in Indian Railways Standard General Conditions of However, Financial Eligibility Criteria as given in Standard General Conditions of Contract will remain unchanged.
8. While awarding contracts in Construction Organisations it should be taken care of that contract of execution of AT welding and its USFD testing are not awarded to same agency. And the results of USFD testing done by agencies should be shared with Open line.

It is reiterated that all the instructions issued in this regard (including references above) may be followed strictly by all concerned.



O/C


(Anurag Yadav)
Director/Track(P)
Railway Board
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E-mail: dtkprb@gmail.com

प्रतिलिपि/Copy to:

1. PSO to ME – for kind information of Board (ME).
2. Sr. PPS to AM(OE) & AM(Works), Railway Board.
3. PED/Bridges & PED/SD, Railway Board.
4. Director, IRICEN.

21/12/20

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492

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)

No.Track/21/2004/0902/7.

New Delhi, dt.12.3.2009.

The Principal Chief Engineers,
All Indian Railways.

Sub:- Outsourcing of USFD activity.

Ref:- This office letter of even number dated 6.11.07 & 28.1.08.

USFD testing is considered to be kept as essential domain knowledge and is a serious safety related activity; Railways should make all out efforts to strengthen the in house capabilities so that bare minimum quantity of USFD testing is outsourced.

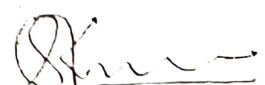
All PCEs were permitted vide this office letter dated 6.11.07, that for inviting tender for outsourcing USFD activity in view of increased workload after introduction of GFC detection, and got further necessitated with the introduction of heavy axle load. In the same letter, it was also advised that the technical specification for ultrasonic testing of rail/weld (Provisional 2007) is to be incorporated in the tender document, which speaks of the various provisions for quality management system as well as eligibility of USFD operators before anybody is permitted to do the USFD testing on running track. Vide this office letter of even number dated 28.1.08, permission for outsourcing was extended up to 31.3.09. From the position collected from various zonal railways, it is learnt that some of the railways are outsourcing the USFD activity to a huge extent while other railways are either not resorting to outsourcing or only a small portion of their track is being outsourced for USFD testing through service contract. It may be appreciated that this outsourcing was permitted because of the need of detecting the gauge face corner defect due to introduction of 25 tonne CC+8+2 & CC+6+2 load and at that point of time, the USFD machine was not capable of detecting the defect in the central portion as well as on the gauge face side simultaneously. Now, instructions have already been issued after the successful retrofitment of additional 70° probe on the gauge face side to make it capable of detecting the defect in the central portion of the head as well as on the gauge face side simultaneously. Due to this retrofitment, additional workload which has arisen, should go down. It appears that Railways have not taken suitable action during the intervening period to strengthen the in-house facility in terms of increasing the manpower for USFD organization and their training and procuring additional machines, though 2 ½ -3 years have already elapsed.

Board (ME) has decided that efforts should be directed towards restricting the outsourcing of USFD activity to 20% (maximum) of the total annual workload and the remaining USFD testing workload is to be met by departmental

infrastructure. Railway should create additional posts, get the PWIs recruited through RRB, arrange for their training, so that railway is self-sufficient to cater the USFD testing workload departmentally. In the intervening period, railway should find out Science Graduates in the lower cadre, arrange for their training and persuade them to take the job of USFD testing, may be by giving a special pay, in consultation with their Personnel and Finance branches. Board (ME) has also observed that more outsourcing testing agencies are arising and the rates for testing would fall soon. The instructions as approved by Board (ME) in brief, are given as under:-

- For all the tenders, Indian Railways Standard Specification for USFD testing of Rail/Weld (Provisional 2007), circulated by RDSO vide their letter No.CT/USFD/Outsourcing dated 11.10.07, should be a part of the tender document. Before finalizing the tender, railway should satisfy themselves about the capability of the firm, about the quality system of the firm as well as the trained capable operators available with the firm, as per the provisional specification of ultrasonic testing of rails/welds for outsourcing.
- Railways should retrofit their SRTs and DRTs with additional 70 ° probe so that the whole section of rail head can be tested simultaneously in the same round of testing. Railway should make arrangement to procure digital SRTs, the source of which has already been approved by RDSO and the digital DRT which is in advanced stage of approval by RDSO.
- USFD tender should only be called from the headquarter and not from the divisions.
- Railway should assess their workload vis-à-vis existing USFD organization and in case of any shortfall, they should create the post, get the people recruited, arrange for their training, so that in house infrastructure is available soonest. For the intervening period, railway should find out Science Graduates in other cadres and persuade them, may be by giving a special pay, arrange for their training and put them on the USFD testing job.
- Railway will have to make all out effort not to outsource more than 20% of the total annual workload of USFD testing on service contracts to start with.
- The out-sourced testing quantum (%age) should gradually come down from the stage of next requirements.

The above instructions are being issued with the approval of Board (ME), which are to be followed by all zonal railways in the matter of outsourcing of USFD activity.


(S.K. Agrawal) 13/3/08
Executive Director Track (P),
Railway Board.

18/3

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New Delhi, dated 08.02.12.

No. Track/21/2004/0902/7Pt.

General Managers,
All Indian Railways.

Sub: Report by Committee of Directors on "outsourcing of USFD testing of Rails".

A Committee of three Directors OF Railway Board i.e (Director/Track(P), Director/F(X)II & Director/Safety(I)) was nominated by Board to suggest a policy document in order to give uniform guidelines for outsourcing of USFD testing of rails. Recommendations of the committee duly vetted by Boards Finance and approved by Board (ME), are being circulated for necessary action by the Railways:-

1. For USFD testing of rails, emphasis of Railway should be, to first fill up the vacancies in USFD cadre and procure digital machines, keeping in view next three years requirement so that maximum quantity of USFD testing is done departmentally and quantity of outsourcing can be minimized. But as USFD testing of rails/welds is a safety item no backlog in USFD testing can be permitted.
2. USFD Testing of rails as well as welds can be outsourced to ensure no shortfall in USFD testing in view of safety involved.
3. Decision of outsourcing of USFD testing for rails and welds with the concurrence of associate finance of the zonal railway may be taken at the level of zonal railways upto 50 % of total annual workload with the approval of PCE and more than 50 % of total annual work load with the approval of GM after analyzing in details total work load and in house infrastructure available with the Railway.
4. For outsourcing of USFD testing, tenders for preferably 2-3 years should be invited keeping in view local site and working conditions. Special conditions of contracts already circulated to zonal railways by Railway Board vide this office letter no. Track/21/2004/0902/7 dated 02.02.2006 with latest amendments should be uniformly followed by all the zonal railways.

(Naveen Chopra)
Executive Director/Track(P)
Railway Board

Copy to: 1. Adv./F(X)/Rly Board for information.
2. Principal Chief Engineers/ All IR: for information and necessary action.

GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
(RAILWAY BOARD)

No. Track/21/2004/0902/7

New Delhi, dated 26.03.14.

Principal Chief Engineer-3,
All Indian Railways.

Sub: Review of eligibility criteria and other technical conditions for calling tenders for outsourcing of USFD testing.

Ref: This office letter of even no. dt. 02.02.2006, 06.11.2007, 12.03.2009 and 08.02.2012

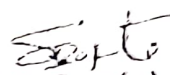
Board (ME) has approved following eligibility criteria and other technical conditions and instructions for calling tenders for outsourcing of USFD testing:

- (i) Railway should make all out efforts to strengthen the in house capabilities of USFD testing so that bare minimum quantity of USFD testing is outsourced.
- (ii) Minimum technical and financial eligibility criteria recommended by Sudhir Chandra committee and circulated vide Railway Board's letter no. 94/CE-I/CTE/4 dated 17.10.02 should be followed for tenders of USFD outsourcing. If required, eligibility criteria may be suitably modified to attract better competition.
- (iii) To encourage new agencies for works of outsourcing of USFD testing open tenders upto Rs.50 lakh values can be invited without any other technical eligibility criteria like testing of 500Tkm etc. But these agencies should have first got their machines, operators and QAP approved from RDSO before participating in the tenders.
- (iv) Generally, all tenders for outsourcing of USFD testing should be called from Zonal HO level combining the quantities of divisions. However, if tenders are called at divisional level, approval of PCEs should be taken in advance before inviting such tenders. Combined tenders for rail/weld testing can be invited.
- (v) Any agency considering the USFD work shall be allowed to offer USFD Machines, operators and QAP for verification by RDSO. The list of agency whose system has been examined by RDSO shall be maintained and regularly updated. After verification of machines, operators and QAP by RDSO, any agency can participate in the tenders.
- (vi) Period of validity of the QAP of the firms should be 3 years and after that it should be renewed based on the machines available with the firms, operators qualified etc. The details of machines deployed by agency shall also be included in QAP. In case the agency wants to induct additional

machines of already approved specification/ category, same shall be done after approval of Zonal railway. Such changes shall be advised to RDSO for record.

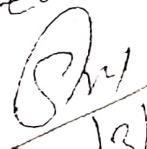
- (vii) Approval of the operator should be done by RDSO in three different categories a) Rail testing b) weld testing and c) rail and weld testing both. The competency certificate shall also clearly indicate the machines, which are worked by operator. Clear mention of operators in type of testing should be made in the QAP. In order to avoid multiplicity of QAP for particular firm, only one QAP shall be approved to a firm for all type of testing viz. Rail testing, Weld testing by hand probing, Flash Butt weld testing.
- (viii) Performance review of USFD operator of contractors shall also be taken by Zonal Railways at regular interval during the currency of the contract in addition to their performance review at the level of quality in-charge of agency. Similar system of review for quality supervisor of agency shall be introduced by zonal railways for better reliability in implementation of QAP.
- (ix) Based on assessed performance by zonal railways and other relevant inputs, the performance of all the operators of agency shall be critically reviewed by RDSO at the time of validation of competency certificate.
- (x) The detailed procedure order will be issued by Track-1 directorate of RDSO in consultation with M&C directorate in view of change in the system of approval of machine, operator and QAP.
- (xi) Maximum delay permitted in testing of a section after it has become due for USFD testing is 25% of frequency of testing of that section or one month whichever is earlier. For further delay penalty of Rs.1000/- per km per day will be levied on the contractor."
- (xii) Test check of 5% by railway should be carried out within 25% time period of frequency of USFD testing in that section or one month whichever is earlier.
- (xiii) Railways personnel deputed along with the contractor's USFD team should jointly sign daily progress report of USFD testing with operator of the contractor.
- (xiv) In test check provisions if any new flaw is detected which was left out by the contractor during testing, the whole length of track (Track length of 50kms) will have to be tested again by the contractor without getting any extra payment for the same.
- (xv) M&C Directorate of RDSO shall act as third party to investigate whether the defect was detectable at the time of USFD testing or not. The decision of RDSO shall be final and binding on both the parties and this decision is not arbitrable.

- (xvi) The present USED Manual and contract conditions do not lay down any provision regarding GCC marking and its subsequent redressal. In this connection RDSO is required to develop suitable guidelines for GCC marking and subsequent course to be adopted for these markings in order to avoid sudden Rail Fracture.


(S.S. Gupta)
Executive Director/Track(P)
Railway Board.

c/l

Copy to : ED/Track-I/RDSO & ED/M&C/ RDSO for necessary action.

Please Issue

26/3/2011

रेल मंत्रालय
Ministry of Railways
रेलवे बोर्ड / Railway Board
अनुलग्नक सहित जारी
Issue with Enclosure
हस्ताक्षर
Signature.....
जारी का तिथि ..
Date of issue.....

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

सं./No.2017/Track-P/9 (2) Vol. III

दिनांक / Date: 07.03.2019

The General Managers, All Indian Railways;
The Director General, RDSO, Lucknow;
CMDs/MDs, RVNL, IRCON, CONCOR & RITES;
PCEs, All Indian Railways;
CAOs, All Indian Railways;
Director, IRICEN.

विषय/Sub: **Technical Eligibility Criteria for Carrying Out Works of
'USFD Testing of Rails/Welds' or 'AT Welding'.**

संदर्भ/Ref.: Rly Board's letter No. 2017/CE-I/CT/8/GCC/Committee
dated 05.11.2018.

Indian Railways Standard General Conditions of Contract, issued vide Board's letter under reference defines the minimum technical eligibility criteria for Works tenders.

The works of 'USFD testing of Rails/Welds' by SRT/DRT or 'AT Welding' are executed by the Firms whose technical capabilities have already been established by RDSO as under:

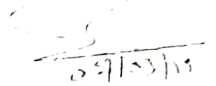
- (a) USFD Testing of Rails/Welds by SRT/DRT/Handheld Testers – The SRT/DRT/Handheld Testing equipments are approved/certified by RDSO for USFD testing, USFD machine operators are tested & certified by RDSO and QAP for such USFD testing submitted by the Firm is approved by RDSO.
- (b) Execution of AT Welding by Agency - RDSO approves the AT Welding technique of the firms alongwith QAP for portion manufacturing and tests & certifies firm's welders for AT Welding.

As such, the requirement of incorporating Technical Eligibility criteria in tenders for the work of 'USFD Testing of Rails/Welds' and 'AT Welding' has been reviewed in Board's office and **Board (ME & FC) have decided to dispense with the Minimum Technical Eligibility Criteria mentioned in Indian Railways Standard General Conditions of Contract for works tender related to "USFD Testing of Rails/Welds by SRT/DRT/Handheld Testers" and "Execution of AT Welding by agencies whose technical capabilities have already been established by RDSO".** However, Financial

Eligibility criteria as given in Standard General Conditions of Contract will remain unchanged.

This issued with the concurrence of the Finance Directorate of Railway Board.

Please acknowledge receipt.

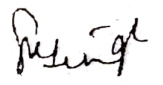

(Anurag Yadav)
Director Track (P)
Railway Board.

दिनांक/Date: 07.03.2019

सं./No.2017/Track-I (P)/9 (2) Vol. III

Copy forwarded for information to:



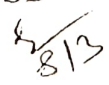
1. The PFAs, All Indian Railways.
2. The Deputy Comptroller & Auditor General of India (Railways), Room No. 224, Rail Bhawan, New Delhi.


For Financial Commissioner/Railways

दिनांक/Date: 07.03.2019

सं./No.2017/Track-I (P)/9 (2) Vol. III

Copy forwarded for information to:

1. PSO to ME  8/3
2. Sr PPS to AM (CE) & AM (Works)  8/3/19
3. PED/Bridges & PED/SD  8/3

c/c

Dear Sir,
22/03/19

22/03/19

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

492/5

No.Track/21/2004/0902/7 Vol-II

दिनांक/Date: 18.04.2019

Principal Chief Engineer(s),
All Indian Railways.

Chief Administrative Officer(s),
All Indian Railways.

विषय/Sub: USFD testing of Rails and Welds.


संदर्भ/Ref: 1) NCR's letter no. 2019 W/1/USFD/Corresp./ NCR/TP/Pt. IX
dated 01.03.2019
2) Board's letter of even no. dated 12.03.2009.
3) Board's letter of even no. dated 08.09.2009.

In reference to the above, it is pointed out that outsourcing of USFD testing was permitted upto an extent of 20%, vide Board's letter at Ref. - 2.

Permitting upto 20% outsourcing was done way back in 2009, only to meet the increased requirement of USFD testing due to situation of GFC detection by 70° Probe. Over the years, Zonal Railways were supposed to induct more SSE/USFD with the goal to gradually reduce and eventually stop outsourcing of manual USFD testing.

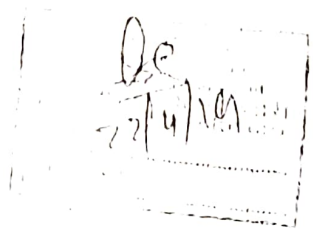
In view of the above, it is advised that Zonal Railways which are doing outsourcing upto 20% in manual USFD, should strengthen departmental setup and stop outsourcing for this important track safety related testing.

This disposes of NCR's letter at Ref. 1 above.


(Anurag Yadav)
Director/Track (P)

प्रतिलिपि/Copy to: DG, RDSO-with request to enhance the number of USFD training courses so that departmental USFD testing setup is strengthened.

Recd & Issued
Shy
22/04/19


22/4/19

o/c

Chief Administrative Officer(s)/Con.;
All Indian Railways.

विषय/Sub: USFD testing of AT Welds executed by agencies.

संदर्भ/Ref: 1. Board's letters No. 2011/Track-I/5(1)/8 dtd.
13.01.2016, 31.01.2017 & 29.03.2017.
2. Board's letter No. Track-I/21/2005/0110/AT
Welding dtd. 23.05.2019.

It has been emphasized vide referred above, to use long rail panels so that number of AT welds are reduced. It has come to the notice, that in construction organizations of a few Railways, execution work of AT welds as well as it's Ultrasonic Testing is being done by the same agency, which is not desirable as it involves conflict of interest. The result of USFD testing is not being shared and it's compliance as per USFD manual is not being done with open line.

In light of the above, following may be ensured:

1. While awarding contracts it should be taken care of that contract of execution of AT welding and it's USFD testing are not awarded to same agency.
2. The results of USFD testing done by agencies should be shared with Open line.
3. Any defect found in welds during "Initial Acceptance Test" should be removed as per para 8.10.1 in terms of Correction Slip No. 4 of Manual for Ultrasonic Testing of Rails and Welds (Revised - 2012-Para 8.14-Note).
4. Adequate departmental source should be developed, so that contractual USFD testing of welds is reduced.
5. Cutting of long rail panels have been allowed as per ref.- 2 which should be followed to reduce number of AT welds in Construction projects.

Compliance of the same may kindly be done.

O/c

4/6/19

(Anurag Yadav)
Director/Track(P)

Railway Board

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विलिपि/Copy to:

PCEs, all Zonal Railways for kind information and necessary action.
AM/W for information.