7520.44

No.RW/NH/Tunnelzone/01/2020-21 Government of India Ministry of Road Transport & Highways (Tunnel Zone) Transport Bhawan, 1, Parliament Street, New Delhi-110001

Dated 4th February, 2021

То

- 1. The Principal Secretaries/Secretaries of all States/UTs Public Works Department dealing with National Highways, other Centrally Sponsored Schemes & State Schemes.
- 2. All Engineers-in-Chief and Chief Engineers of all States/UTs Public Works Department dealing with National Highways and other Centrally Sponsored Schemes.
- 3. The Chairman, National Highways Authority of India (NHAI), G-5&6, Sector-10, Dwarka, New Delhi-110 075.
- 4. The Managing Director, National Highways Infrastructure Development Corporation Ltd., 3rd floor, PTI Building, Parliament Street, New Delhi- 110 001
- 5. The Director General (Border Roads), Seema Sadak Bhawan, Ring Road, Naraina, New Delhi.

Subject: Constitution of Expert Committee on Tunnel for resolving technical issues which arise in implementation of Tunnel Projects-reg.

Sir,

On the direction of Hon'ble Minister (RT&H), a Tunnel Zone has been created in the Ministry with a mandate to build the capacity for excellence in Tunneling, preparation of guideline on design and construction of tunnel through Expert Committee, formulation of Standard operating Procedure (SoP) for construction, operation and maintenance of tunnel, examining the emerging technologies of tunnel construction, monitoring of tunnel works on NHs & providing concept at planning stage and suggesting / recommending solution in case an issue is resulting in delay in implementation of tunnel projects. This Zone will also act as repository of knowledge based on historical data of tunnel construction in the country.

2. To accomplish the above mandate, an Expert Committee on Tunnel having experts from Industries, Academic Institutions & Government Organizations has been constituted vide this Ministry's O.M of even number dated 4th February 2021 (Copy enclosed).

3. In case, an ongoing Tunnel project is delayed due to technical issues, the concerned Authority of the project may refer the matter to DG(RD)&SS along with details of the project and description of issues involved. To accomplish an identified task, Members of the Expert Committee (EC) having domain expertise will be deputed by Director General (Road Development) & Special Secretary. Non-official deputed members have to give an undertaking

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that they are not having any conflict of interest vis-à-vis the task/assignment. The EC shall visit the Tunnel project site referred by MoRT&H and give their suggestion/ recommendations for implementation

4. The content of this circular may be brought to the notice of all concerned in your organization.

5. This issues with the approval of competent authority.

Yours faithfully,

Enclosure: As above

Anures

(Anurag Gupta) Assistant Executive Engineer For Director General (Road Development) & SS

Copy to:

- 1. The Secretary General, Indian Road Congress, New Delhi- With request to publish in Indian Highways, Journal
- 2. All CEs in the Ministry of Road Transport & Highways
- 3. All ROs of the Ministry of Road Transport & Highways
- 4. Technical Circular file
- 5. NIC-for uploading on Ministry's website under "What's new"

Copy for kind information to:

- 1. Sr. PPS to Secretary(RT&H)
- 2. PPS to DG(RD)&SS
- 3. PPS to AS&FA
- 4. PS to ADG-1/II/III/IV/V
- 5. PS to JS(H)/JS(NHIDCL)/JS(Toll)/JS(LA&C)

No.RW/NH/Tunnelzone/01/2020-21 Government of India Ministry of Road Transport & Highways (Tunnel Zone) Transport Bhawan, 1, Parliament Street, , New Delhi-110001

Dated 4th February, 2020

OFFICE MEMORANDUM

Subject: Constitution of Expert Committee on Tunnel in Ministry- reg.

With the approval of the Competent Authority, an Expert Committee on Tunnel is constituted with following members for resolving issues involved in Tunnel works on National Highways in the country and also to guide/assist Tunnel Zone in formulating guidelines regarding Tunnel works:

SI. No.	Name of Expert	Position in the Expert Committee
1	DG(RD)&SS, MoRT&H	Chairman
2	ADG, Tunnel Zone, MoRT&H	Member
3	Sh. Rahul Gupta, Chief Engineer, Tunnel Zone, MoRT&H	Member Secretary
4	Secretary General, IRC or Representative	Member
5	Sh. Amarendra Kumar, CGM(T), NHAI	Member
	Sh. A.K. Srivastava, Retd. ADG, MoRTH	Member
6 7	Sh. S.K. Dharmadhikari, Consultant MSRDC & permanent invitee of	Member
8	Sh. R. K. Varma, Scientist 'G', Associate Director, DRDO (DGRE) [formerly SASE]	Member
9	 Dr. Jagdish Telangrao Shahu, Professor, IIT Delhi Dr. Tanusree Chakraborty, Associate Professor, IIT Delhi (Alternate Member) 	Member
10	 Geologist/ Tunnel excavation /Geology expert: 1. Sh. Vinod Shukla, MD FGS Consultants 2. Sh. J S Rathore, MD JCM Developers, PMC - L&T Projects, Construction Consultant to Navyuga and APCO (Alternate Member) 3. Dr. Kuldeep Sing Jamwal (Retd) Dy. DG GSI, Advisor -WAPCOS, Advisor - panel of experts for hydroelectric project to Himachal Construction (Alternate Member) 	
11	 Government (Atternate Member) E&M (Ventilation, lighting, firefighting & other instrumentation) expert : 1. Sh. M.K. Bharatan, currently with SMEC working on Rohtang Tunnel 2. Sh. Salil Singh, Technical Lead HVAC Adani Enterprise, Formerly Associate Manager IL&S Ltd. (Alternate Member) 	, Member

12	 Col. Manish Kapil, Commander 21, BRTF, BRO Col. Parikshit Mehra, Director, Rohtang Tunnel, BRO (Alternate Member) 	Member
13	Sh. Amit Kumar Chakraborty, Joint Vice President, STUP Consultants Pvt. Ltd.	Member
14	Any other expert(s) as required for examining the referred matter to be co-opted by Chairman.	Co-opted Members

2. Terms of reference (TOR) for Expert Committee is enclosed herewith.

Procedure for referring the matter to the Expert Committee:

"In case a Tunnel project is encountering a technical issue affecting the progress of the work or resulting in dispute, the concerned Authority of the project may refer the matter to DG(RD)&SS along with details of the project and description of issues involved. To accomplish an identified task, Members of the Expert Committee (EC) having domain expertise will be deputed by Director General (Road Development) & Special Secretary. Nonofficial deputed members have to give an undertaking that they are not having any conflict of interest vis-à-vis the task/assignment."

4. TA and DA for all non- official members shall be regulated as per letter no. 19047/1/2016- E. IV dated 14.09.2017 issued by the Ministry of Finance (copy enclosed) & the sitting fee fixed at Rs. 6,000/- per day or part thereof as per Ministry of Finance's OM No. 19047/10/2016-E-IV dated 12.04.2017.

5. Secretarial assistance for the functioning of the Expert Committee will be provided by Ministry through Member Secretary.

6. The expenses towards such expert advice, for holding meetings including tour, travels & other incidental expenditure i.e. secretarial and meeting expenditure etc., shall borne from the contingency provision made for the project to which the case pertains. However, expenses on meeting conducted to provide guidance to Ministry for formulating standards/guidelines on Tunnel, shall be borne from the head Research and Development-Professional Services(sub head)-Grant in aid general. The expenditure of the Committee including travel and other incidental expenses will be paid on the bills processed by Member Secretary and counter signed by the Chairman.

7. This issues with the concurrence of Integrated Finance Division of MoRT&H & approval of the Competent Authority.

Encl.: As above.

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(Anurag Gupta) Assistant Executive Engineer For Director General (RD) & SS To,

1. All members of Expert Committee Copy to:

1. PS to Hon'ble Minister (RT&H & MSME),

2. Sr.PPS to Secretary(RT&H), PPS to DG(RD)&SS, PS to AS&FA

(Enclosure to MoRT&H's O.M. No. RW/NH/Tunnelzone/01/2020-21 dated 4th February 2021)

Terms of Reference of Expert Committee (EC) on Tunnel

- 1. To accomplish an identified task, Members of the Expert Committee (EC) having domain expertise will be deputed by Director General (Road Development) & Special Secretary. Non-official deputed members have to give an undertaking that they are not having any conflict of interest vis-à-vis the task/assignment.
- II. The EC shall examine all technical & contractual matter referred with the approval of DG(RD)&SS and suggest / recommend solution in case an issue is resulting in delay in execution of projects.
- III. The EC need to formulate/prepare guideline on design and construction of tunnel, SOP for Geological & Geo technical investigation, construction, operation and maintenance for tunnel projects.
- IV. The EC has to review the DPR prepared by the consultant as per the latest codes/ guidelines/specifications. EC is expected to review all the reports submitted by the consultant and visit the site & furnish their recommendation to be adopted in the DPR to minimize the risk and to ensure fast & safe execution of work. Their recommendation has to be submitted within a fortnight.
- V. The EC is also assigned the task of framing a contract document for tunnel projects, which caters for fair risk sharing mechanism. In order to ensure smooth implementation of tunnel projects, a sound tender and contract document should be framed to account for the risks originated due to the uncertainties of underlying geological strata.
- VI. The EC is also assigned the task of suggesting the way forward to settle the disputes relating all technical matters including structural design and drawings, construction procedure/sequences, interpretation of codes/ guidelines/ specifications etc. as required for successful completion of the project consistent with the Project Completion Schedule.
- VII. The EC will also finalize associated design approaches, construction methodologies/ sequences as well as the relevant specifications/codes/ guidelines so that the contractor may use the proposed new/alternative materials/technologies equipments in tunnel project.
- VIII. The EC shall also examine all such proposals in view of their structural feasibility, constructability, maintainability and durability subject to condition(s) that it (a) should meet all design and acceptability parameters prescribed in concession agreements/manuals/ specifications, (b) may have higher performance, (c) may have low maintenance needs over its service life, (d) may reduce construction time without affecting the durability and overall performance, (e) should be cost-effective and (f) may be environmentally friendly.
 - IX. The EC shall visit the delayed project site referred by MoRT&H and give their suggestion/ recommendations report highlighting the following:
 - ii. Identification of bottlenecks in the ongoing project and suggest measures for timely completion.
 - iii. Identification of system flaws in the quality assurance process and ways to improve it.



- iv. Preparing a list of non-conforming works, holding coordination meeting with contractor, Engineer-In-Charge, supervision consultant / Authority Engineer/ Independent Engineer, to discuss and arrive at an agreed list of non-conforming works, formulate remedial measures and work out timelines. The report should contain the record of discussions and specific recommendations of the EC.
- v. Preparing a list of work activities to be crashed to mitigate delays and the additional resources to be mobilized for crashing the activities.
- vi. Identifying best practices and documenting them clearly in a separate section in the report.
- vii. Inadequacies, if any in the technical provisions made for the project.

The aforesaid report should be submitted within fortnight to Chief engineer, Tunnel zone, MoRT&H with a copy to Project Authority [DG(RD)&SS, MORT&H / Chairman, NHAI / Managing Director, NHIDCL / Director General (Border Roads)].The recommendations of the Expert Committee should be comprehensive and include all related aspects of structural design and drawings, construction procedure/sequences, interpretation of codes/guidelines/ specifications etc.

- X. The EC may call the DPR Consultant, IE/AE for discussion/presentation as per their discretion. The EC also have the liberty to seek advice from other experts as may be required by Chairman of the EC.
- XI. The EC shall also provide guidance to the authorities in the approvals and implementation of the research schemes of the Ministry involving the tunnel works. The EC may also suggest required changes in IRC codes/ Ministry specification for the adoption of new technologies or equipments in Indian condition.

XII. IMPLEMENTATION ARRANGEMENTS:

The EC once assigned the project shall be required to undertake inspection of the assigned project. The EC will be assisted in his independent evaluation of the project by the concerned officers. The tests for quality control, if desired by MoRT&H, shall be carried out in either of the following:

I. Field laboratories established by the contractor.

II. For specific tests: Testing to be done in district/ regional/ State level laboratories of the Employer/ NABL accredited labs/ Government Engineering Colleges.

The Executing agency shall be responsible for ensuring that the EC is provided full support in performing task assigned to EC, including support in taking samples, transportation of samples to the laboratory and testing in presence of representative of implementing authority. The employer shall bear all associate expenses. The EC shall have complete access to the documents pertaining to the project and for this purpose he shall be assisted in his inspection by concerned Executive Engineer of State PWD or BRO/ PD of NHAI/ PD of NHIDCL, as is applicable.

XIII. **FACILITIES:** The Expert Committee shall make his own arrangement for travel, accommodation, transport etc. The expenditure incurred on travel and accommodation will be reimbursed as per the guidelines finalized by Ministry as

explained in TOR under financial aspects. It is expected of EC that it will not take any type of support from the contractor.

XIV. FINANCIAL ASPECTS:

- i. TA and DA for all non- official members (including the co- opted members) shall be regulated as per letter no. 19047/1/2016- E. IV dated 14.09.2017 issued by the Ministry of Finance & the sitting fee fixed at Rs. 6,000/- per day or part thereof as per Ministry of Finance's OM No. 19047/10/2016-E-IV dated 12.04.2017.
- ii. The expenses towards such expert advice, for holding meetings including tour, travels & other incidental expenditure i.e. secretarial and meeting expenditure etc., shall borne from the contingency provision made for the project to which the case pertains. The expenditure of the Committee including travel and other incidental expenses will be paid on the bills processed by Member Secretary and counter signed by the Chairman. The EC shall submit bills to the concerned Regional Officers of this Ministry who will make payment out of the contingency of the estimate. In case of NHAI and NHIDCL, the respective Project Directors will be responsible for payment to EC.
- iii. Expenses on meeting conducted to provide guidance to Ministry for formulating standards/guidelines on Tunnel, shall be borne from the head Research and Development-Professional Services(sub head)-Grant in aid general.
- XV. Periodic feedback of the performance of EC shall be gathered by the Employer. The Reports/ Performance of the EC shall be periodically reviewed by the Employer. In case of unsatisfactory performance/ actions prejudicial to fair and transparent contact/ concession operation, the Employer may consider debarment/ blacklisting of the EC.

F.No. 19047/1/2016-E.IV Government of India Ministry of Finance Department of Expenditure

> North Block, New Delhi. Dated: 14.09.2017

OFFICE MEMORANDUM

Subject: TA/DA entitlements of Non-officials of Committees/Boards/Panels etc.

The undersigned is directed to state that the issues related to payment of TA/DA to Non-officials of Committees/ Boards/ Panels etc. have been examined in D/o Expenditure. It has been decided that TA/DA entitlement of Non-officials may be regulated by the Administrative Ministries/ Departments in the following manner:-

(I) Retired Govt. officials nominated as Non-official in the Committees/Boards/Panels etc. :

TA/DA entitlement of these Non-officials will be same as per their entitlement at the time of retirement as per revised rates mentioned in this Department's O.M. No.19030/01/2017-E.IV dated 13.07.2017.

(II) Persons from various fields nominated as Non-official in Committees/Boards/ Panels etc. :

TA/DA entitlement of these Non-official will be same as admissible to officers in Pay level-11 (Pre-revised Grade Pay of Rs.6600/-) in the Pay Matrix. TA/DA Entitlements will be as under:-

- i) Travel entitlement within the country Economy class by Air or AC-II by train.
- ii) Reimbursement for hotel accommodation/guest house of up to Rs.2250/- per day.
- iii) Reimbursement of non-AC taxi charges of up to Rs.338/- per day for travel within the city.
- iv) Reimbursement of food bills not exceeding Rs.900/- per day.

(III) Eminent personalities nominated as Non-official in the Committees/Boards/Panels:

TA/DA entitlement of these Non-officials will be same as admissible to officers in Pay level 14 (pre-revised Grade pay Rs.10,000/-) in the Pay Matrix. TA/DA Entitlements will be as under:

i) Regarding travel entitlement of these Non-officials, Secretary in the Administrative Ministry, in consultation with the FA, may allow eminent personalities who are Non-officials in the Committees/Boards/Panels etc., to travel in Executive class in the Domestic airlines within the country subject to the following conditions :-

- a) Where a Non-official is or was entitled to travel by air by Executive class under the rules of the organization to which he belongs or might have belonged before retirement.
- b) Where the Administrative Ministry is satisfied that the travel by Executive class by air is the customary mode of travel by the Non-official concerned in respect of journeys unconnected with the performances of Govt. duty.
- ii) Reimbursement for hotel accommodation/guest house of up to Rs.7500/- per day.
- iii) Reimbursement of AC taxi charges as per actual for travel within the city.
- iv) Reimbursement of food bills not exceeding Rs.1200/- per day.

Contd..2/-

In respect of Non-officials who are local, Mileage Allowance at the following rates will be admissible:-

- For retired Government officers- TA/DA as per their entitlement at the time of retirement as per revised rates mentioned in this Department's O.M. No.19030/01/2017-E.IV dated 13.07.2017.
- ii) Other Non-officials nominated from various fields Reimbursement of non-AC taxi charges of up to Rs.338/- per day for travel within the city.
- iii) For eminent personalities nominated as Non-officials Reimbursement of AC taxi charges as per actual for travel within the city.
- 3. The TA/DA entitlements mentioned in Para I above will be subject to the following conditions:-
 - These TA/DA entitlements will be applicable in case of Non-officials coming from outside. Local Nonofficials will not be entitled for TA/DA.
 - ii) Local Non-officials will be entitled for Mileage Allowance only.
 - Cases seeking deviation from the above entitlements may be referred to M/o Finance giving full justification for seeking deviation.
- 4. These instructions will be effective from the date of issue of this O.M.
- 5. This is issued with the approval of Finance Minister.

(Nirmala Dev) Deputy Secretary (EG) Telefax. 23093276

- 1. Secretaries of all Ministries/ Departments (as per standard list)
- 2. Financial Advisors of all Ministries/ Departments as per standard list

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No.19047/10/2016-E-IV Government of India Ministry of Finance Department of Expenditure

> North Block, New Delhi. Dated: 12.04.2017

OFFICE MEMORANDUM

Subject: Delegation of powers to Ministries/ Departments for payment of Sitting Fee in respect of Non-officials of Committees/ Panels/ Boards etc.

The undersigned is directed to state that the issues related to payment of Sitting Fee to Non–officials of Committees/Panels/Boards etc. have been examined in D/o Expenditure. It has been decided that Administrative Secretaries of the Ministries/ Departments may decide the Sitting Fee in respect of Non-officials of Committees/Panels/Boards etc. in consultation with their Financial Advisors and with the approval of their Ministers.

2. While considering the proposals for payment of Sitting Fee to Non-officials, the Ministries/Departments are directed to keep in view the following instructions/guidelines:-

- 2.1. <u>Categorisation of Committees:</u> For the purpose of payment of Sitting Fee, Committees/Boards/panels are categorized into following three categories:-
 - (i) <u>High Level Committee</u>: In terms of Cabinet Secretariat Circular No. 1/16/1/2000-Cab. dated 15.04.2002, a High Level Committee is a Committee set up with the approval of Hon'ble Prime Minister through the Cabinet Secretary and presided over by a high ranking dignitary e.g. a Minister, a Judge of the Supreme Court of India, a Vice-Chancellor etc. including prominent persons in public life as Members.
 - (ii) <u>Technical or Expert Committee:</u> A Technical or Expert Committee is a Committee constituted to discharge functions as prescribed under Acts/Rules/Subordinate legislation on the subject. Such Committee is to be set up with the approval of the Minister of the concerned Ministry. In case any Member of Parliament is included in the Committee, the prior approval of Prime Minister to their inclusion is to be obtained in terms of Cabinet Secretariat Circular No.1/16/1/2000-Cab. dated 15.04.2002.
- (iii) <u>Other Committees:</u> All other Committees will be covered under this category. These Committees will be constituted with the approval of the Administrative Secretary or Minister.

2.2 <u>Definition of a Non-official</u> : For the purpose of grant of Sitting Fee only such persons are to be considered as Non-officials who are not employed in any institution/ organisation/body funded by the Central Government.

3. <u>Rates of Sitting Fee</u>: On the basis of categorisation of Committees viz. High Level Committee, Technical or Expert Committee and Other Committees, The Ministries/Departments shall ensure that the maximum rates of Sitting Fee to be paid to Non-official Chairman/ Members will not be more than the following:-

- (i) High Level Committee : Not more than Rs.10,000/- per day of Sitting.
- (ii) Technical or Expert Committee : Not more than Rs.6000/- per day of Sitting.
- (iii) Other Committees : Not more than Rs.4000/- per day of Sitting.

4. For arriving at the rates of the Sitting Fee to Non-official Chairman and Members of the Committees/Boards/Panels, the Ministries/Department shall observe the following conditions:

- i. While considering the amount of Sitting Fee, the Ministries/Departments have to keep in view facts such as nature and scope of the Committee, importance of the subject assigned to the Committee, category of the Committee (i.e. High level Committee, Technical or Expert Committee or other Committee), level/ status of Chairperson/ Members, duration of the Committee, frequency of meetings, Terms of Reference of the Committee etc.
- ii. In no case, the ceiling should exceed 10 meetings in a month in respect of all categories of Committees viz. High Level, Technical or Expert Committees and Other Committee. It is presumed that such committees are constituted for a limited duration specified in the order.
- iii. It is clarified that the Govt. employees nominated to such Committees/ Boards/ Panels etc. will not be entitled to Sitting Fee.
- iv. Cases seeking deviation from the above norms may be referred to M/o Finance giving full justification for seeking deviation.
- 3. These instructions will be effective from the date of issue of this O.M.
- 4. This is issued with the approval of Finance Minister.

12/04/2017 (Nirmala Dev)

Deputy Secretary to the Government of India Telefax. 23093276

- 1. Secretaries of all Ministries/ Department (as per standard list).
- 2. Financial Advisers of all Ministries/ Departments (as per standard list).
- 3. Cabinet Secretariat For information.