

Minutes of 60th Meeting of Central Motor Vehicle Rules-Technical Standing Committee (CMVR-TSC) held online on 13th April 2022 under the Chairmanship of Shri Amit Varadan, Joint Secretary (MVL)

List of participants is attached as **Annexure-I**.

- 1.0** Shri A. A. Badusha, ARAI, welcomed the Chairman Shri Amit Varadan, Shri K. C Sharma, MoRTH, Officials from Transport Department of Delhi, Rajasthan and Karnataka, Director ARAI, Director CIRT and all the delegates. He highlighted that CMVR-TSC is in its 25th year of inception and it has been instrumental in shaping the automotive industry in India. He acknowledged the contributions of all past Chairmen and Committee members who played a key role in the smooth functioning of the Committee in all these years. Shri Badusha then invited Chairman to share his opening remarks.

Chairman welcomed the members and mentioned that it was a pleasure to have stakeholders attending the meeting physically, which was not possible to the pandemic situation last year. He emphasized the importance of the work taken up by the Committee in meeting the Government's objective to promote automotive safety. He stressed on having the automotive regulations in India at par with those established internationally. He highlighted India's commitments at the global level in the area of Environment and Safety and requested the concerned stakeholders to put in joint efforts for the national cause. He directed that the harmonization of Indian Automotive Standards with UN Regulations and UN Global Technical regulations needs to be accelerated. Chairman expressed his concern with respect to the recent fire incidents in electric two wheelers. Also, there is a need to conduct a workshop to understand the fire issues and deliberate on the way forward.

2.0 Confirmation of Minutes of the previous meeting :

Secretariat informed that Minutes of 59th meeting of CMVR-TSC were circulated vide email dated 19th March 2021 and no comments were received. Committee noted the information and approved the minutes.

3.0 Progress on follow-up points of the last / earlier meetings of CMVR-TSC :

(i) Radio Frequency Allocation for various Automotive Applications :

Shri P. K. Banerjee, SIAM, informed that SIAM has made representation to Department of Telecommunication for delicensing of additional frequencies.

He mentioned that delicensing for some frequencies is sought for new technologies which need to be introduced in vehicles sold in India and some for the vehicles to be produced in India for International markets. Shri Nikhil Desai, SIAM, presented the list of frequencies to be delicensed which is put up for consideration to DoT. The list is attached as **Annexure-II**. He requested MoRTH to put up suitable recommendations to DoT for the same. Shri Deepak Sawkar, SIAM, informed that in the past certain frequencies which were to be used for technologies such as Advanced Emergency Braking Systems (AEBS) were delicensed for the vehicles produced in India but meant only for exports. Shri B. Bhanot, IAC, expressed that in absence of delicensing of frequencies required for vehicle to vehicle and vehicle to infrastructure communications standard formulation work in these areas is significantly affected. He requested MoRTH to take up the subject with DoT.

Committee noted the current status. Chairman informed that MoRTH will put up recommendations to DoT for consideration.

(ii) Crash Guards / Bull Bars :

Ms. Vijayanta Ahuja, ICAT, presented the background on the subject. The Committee deliberated on the basic concept of allowing crash guards / bull bars irrespective of whether when fitted on vehicle they will be able to meet the crash test requirements. Shri K. C. Sharma, MoRTH, informed that Ministry had earlier issued a direction to all Transport Commissioners requesting to stop the use of crash guards / bull bars since these are in violation of Section 52 of Motor Vehicle Act. However, after receiving representations from manufacturers of crash guards / bull bars, it was felt that a study may be conducted to understand the effects and subsequently take a call on permitting such devices. Ms. Ahuja informed that one of the crash guard manufacturers had come forward to evaluate his design vis-à-vis the CMVR requirements which are perceived to be affected by fitting the additional accessories. She submitted that the crash guards / bull bar designs which are evaluated and qualify the requisite tests as per CMVR, may be allowed. Shri A. V. Mannikar, ARAI, expressed that only in the event wherein the crash guard / bull bar manufacturer collaborates with an OEM and get the approval for the design at the time of type approval of vehicle model itself, such fitments may be allowed. However, if the design is not part of OEM approved fitment then crash guards / bull bars shall not be

allowed considering their effect on safety. Shri B. Bhanot, IAC, expressed that on one hand safety is promoted by introducing stringent crash norms and on the other there is deliberation on fitment of accessories which may affect the same. Even though ICAT study suggests that one of the designs meets the requirements but it will be impractical for crash guard and bull bar manufacturers to seek approval for all designs for different vehicle models and therefore the additional fitments shall not be permitted. Prof. Anup Chawla, IIT Delhi, submitted his reservations for fitment of crash guards / bull bar and expressed that it will significantly affect the pedestrian safety. Shri A. A. Badusha, ARAI, raised the issue of impact of fitment of additional accessories which are not part of OEM standard accessories for compliance to Pedestrian Protection standards and on the warranty claims for vehicles. Shri P. K. Banerjee, SIAM, expressed that it is a complex issue and mostly related to the customer personal choice. SIAM deliberated the issue in detail with its members and were unable to come to a conclusion and it was agreed that the prescribed norms as would be decided by competent authority shall be followed.

Based on the above deliberations, Committee decided to drop this subject.

(iii) Definition of Hybrids - mild & strong hybrids vehicles :

Shri K. C. Sharma informed that the subject was reviewed and it is observed that there are contradictions in definitions of hybrids as per AIS 102 and AIS 137. Earlier FAME 1 scheme considered definitions as per AIS 102. Subsequently it was deliberated that to qualify a vehicle as a hybrid vehicle it should have more than one powertrain and the vehicle could run in a standalone manner. This clarity is existing in Fame 2 document, AIS 137 and as well as BEE super credit scheme. The definitions in these three documents were as per UN Regulations and it is felt that the definition should be harmonized and that definition existing in AIS 102 may be amended suitably. He mentioned that though mild hybrids do offer advantage in fuel economy yet they do not qualify as hybrids as per the definitions existing in international standards and the documents such as AIS 137, Fame 2 etc. Also, Ministry receives representations from states to categorize hybrids as strong or otherwise which is not feasible. Shri P. K. Banerjee, SIAM, expressed that the subject of providing incentives as per the laid down norms and the definitions existing in AIS standards are two different issues. He informed

that SIAM has already submitted that incentives may not be given to mild hybrids. However, the definitions in the standards may not be altered. Shri Gururaj Ravi, SIAM, expressed that definitions in AIS 102 are as per UN R 101 and that AIS 102 is the master standard for hybrid vehicles. These definitions have been in existence and in use for certification over the years and therefore shall be retained. Definitions in AIS 137 are supporting definitions which are used for super credits. Shri Alok Jaitley, SIAM, expressed that alteration in definitions may affect the approvals already granted to vehicles and that this aspect may be duly considered while taking any decision.

Committee noted the above arguments and it was agreed to harmonize definitions in all standards as per International regulations. Shri A. A. Badusha, ARAI, recommended that additionally IS: 14272 which covers definitions for vehicle types and notified under CMVR, may also be amended to include the requisite definitions. Committee requested AISC panel to deliberate on the subject and recommend proposals for consideration. A committee has been formed under the chairmanship of Shri K C Sharma, MoRTH with members from:

- Ministry of Heavy Industries
- Ministry of Finance
- ARAI (Shri A.A. Badusha)
- International Centre for Automotive Technology (Smt. Vijayanta Ahuja)
- Society of Indian Automobile Manufacturers
- Government of Kerala

(iv) Analysis of vehicle fire - causes and preventive measures :

Secretariat informed that based on the discussions in the last meeting SIAM has submitted its response to MoRTH on the proposal put up by ICAT. Shri P. K. Banerjee, SIAM, presented SIAM's views. The presentation is attached as **Annexure-III**. Shri Banerjee expressed that it is difficult to ascertain the root cause of fire since in most of the cases the product is fully destroyed. Also, the investigations carried out by OEMs point to the spurious parts fitted on vehicles as one of the major concerns for vehicle fires. However, considering the sensitivity of the subject and based on directions given in the past, SIAM maintains a database of fire incidents and the information is made available from time to time. ICAT had submitted its recommendations for further progress on this front but subject of fire is a complicated issue which would

require detailed deliberation before arriving at a way forward. He highlighted that based on ICAT proposal the data would be readily available on portal for public access which may lead to confusion. Shri Deepak Sawkar, SIAM, requested that the fire incident should be reported after the root cause analysis is completed. Shri Rajendra Khile, SIAM, presented an example wherein a root cause analysis revealed that the vehicle fire had nothing to do with vehicle per se. Shri Alok Jaitley, SIAM, expressed the need for establishing an expert committee for conducting root cause analysis of vehicle fire incidences and that the reporting of incidences without a proper study may not be appropriate. Shri Balraj Bhanot, IAC, expressed that there is a need to establish adequate check points to promote only those vehicle manufacturers who are capable to carry out detailed evaluation of their product before launching in the market. In light of the electric two wheelers fire issues, Shri K. K. Kapila, IRF, recommended to have a licensing policy for battery manufacturers and that there needs to be a Conformity of Procedure (CoP) system for traction batteries.

Chairman clarified that the need for reporting the incident is essential. The database format can have a provision to present the current status of investigation into the incidence for the information of the public. Further, details such as number of incidences vis-à-vis the number of vehicles sold for that model may be presented to give a clear perspective to the public. Ms. Vijayanta Ahuja, ICAT, informed that the draft structure for the portal is ready. She informed that the same will be reviewed based on SIAM's recommendations and that the finalized draft structure will be put up for review to MoRTH in one month's time. She proposed that with the assistance from NIC the portal can be launched subsequently. Shri Banerjee requested that a final decision on the subject may be taken once the draft structure of the portal is finalized by ICAT.

Chairman recommended that a special meeting will be called to discuss this specific issue and that ICAT needs to present its finalized proposal in the meeting for consideration.

Committee further deliberated on the need to establish an expert committee to evaluate vehicle fire incidences. Chairman requested ARAI to coordinate the activity of establishing the Committee which may include experts from Government agencies such as DRDO besides experts from automotive safety domain. Shri K. C. Sharma, MoRTH, recommended that Committee may have

different verticals based on the type of primary source of propulsion viz., gaseous fuels, electric etc. Dr. Reji Mathai, Director ARAI, proposed that the proposal for the Committee will be put up for consideration in the special meeting on the subject.

It was agreed to discuss the above subjects in a special meeting to finalize a way forward.

(v) Level playing field for OEMs and body builders of trucks and buses :

Chairman informed that submissions in this regard have been received from SIAM and Ministry is reviewing the same for addressing the concerns suitably. He highlighted on the recent initiative of making the fire detection, fire suppression and fire protection systems compulsory for all buses i.e. for both OEM and bus body builder, which is one such step taken by the Government. Shri P. K. Banerjee, SIAM, appreciated Ministry for considering the subject and highlighted the disparity between OEMs and bus body builders which leaves OEMs in a disadvantageous position. He highlighted that state road transport undertakings are the biggest entity in area and may be advised suitably to encourage to seek type approvals from test agencies. Shri K. K. Kapila, IRF, recommended that self-certification should be discouraged. Government may explore opportunities to incentivize type approvals through road safety fund. Shri Balraj Bhanot proposed that bus body builders may be provided two options viz., first, they can seek approval for their design from test agency or second, they may use a standard type approved design which can be shared between different bus body builders. Shri S. N. Dhole, CIRT, highlighted that there are numerous combinations of buses and it would be difficult to have standardized designs. Shri A. A. Badusha, ARAI, informed that bus body builders seek to keep individual identity and therefore standardized design are not a feasible solution. However, test agency may explore to provide type approval services at the most optimum cost. Shri K. C. Sharma, MoRTH mentioned that the phase wise approach as presently perceived under the guidance of Chairman is the best way forward to bring the bus body builders in the ambit of type approval process through test agencies.

Chairman informed that the concerns are noted and that Ministry is already in process of reviewing the concerns.

Shri S. N. Dhole further requested Ministry to address the registration issues wherein the buses not compliant to AIS 052 (Rev. 1) are getting registered. Chairman suggested that an advisory may be issued to the Transport Departments in this regard.

(vi) Increase of life of buses and cars from 8 years to 12 years covered under All India Permit :

Shri P. K. Banerjee, SIAM, expressed that the intent of the agenda item is to extend the life of vehicles seeking national permit. In this regard, Ministry of Road Transport & Highways has published the All India Tourist (Authorisation or Permit) Rules, 2021 vide GSR 166 (E) dated 10th March 2021. As per Rule 4(5), the permit shall not be granted to a tourist vehicle after completion of 12 years from the date of first registration.

4.0 New Subject for Discussion :

(i) Sunroof as an optional feature in top models and premium luxury cars :

Shri A. A. Badusha, ARAI, informed that a submission was received at the Secretariat, wherein concern with respect to non-availability of top specification vehicle model/variant without sunroof has been highlighted. He informed that the submission states that fitment of sunroof has concerns such as addition of extra weight which may affect fuel economy, sun roofs are misused by users to poke body parts outside an open sunroof, added extra cost in the overall package etc. It is requested that the buyer may have an option to buy top specification model with or without sunroof. Shri P. K. Banerjee, SIAM, expressed that sunroof does not compromise the integrity of the vehicle. Vehicles with sunroof also meet the laid down crash requirements. It is a market demand driven feature and that the agenda point may not be pursued further on technical grounds. Committee noted the information. This agenda point need not be pursued further.

(ii) Three wheeled Agricultural Tractor :

Ms Vijayanta Ahuja, ICAT, presented the proposal on the subject. Her presentation is attached as **Annexure-IV**. She highlighted the difference in definitions of Agricultural Tractors in European Directive, IS standard and CMV Rules and expressed that CMVR definition restricts the agricultural

tractors to be only four wheeled whereas European Directive and IS standard has no such restriction. She presented the outcome of various tests conducted by ICAT on a three wheeled agricultural tractor. Additionally, stability test was performed to ensure added safety. She proposed that suitable changes may be done in CMVR so that three wheeled tractors may be certified. Shri Philip Koshy, TMA, expressed that three wheeled tractors would be useful for farmers with small land holding. Shri R. P. Vasudevan, TMA, submitted that the construction of the three wheeled tractor allows it to maneuver easily and that with its less axle weight is helpful in avoiding damage of the roots of plants in the farm. It was also informed that three wheeled tractors are available in Europe and US. Shri K. K. Kapila expressed that since these tractors would also ply on roads they shall be fitted with reflective tapes to enhance visibility. Committee noted the information. It was agreed to adopt the proposal and that suitable action will be taken in this regard.

Shri R. P. Vasudevan further raised the subject of provision of accessories on tractors to facilitate braking and functioning of light and light signaling devices on trailers. He highlighted that Agricultural trailer code has not been notified yet and therefore the accessories provided are of no use and add to the cost of the tractors unnecessarily. Shri A. A. Badusha, ARAI, highlighted that few agricultural trailer manufacturers are using these features for brakes as well as light and light signaling devices and that it may not be appropriate to discontinue such features altogether. Shri Vasudevan expressed that fitment of such accessories shall not be mandated and can be made available if are opted for by the trailer manufacturer.

Committee noted the information and it was agreed that AISC may review the proposal and a way forward may be presented to Ministry for consideration.

5.0 Report from AISC

(a) Standards and amendments for deliberations / adoption :

Secretariat presented the details of the following standards for consideration for adoption by the Committee. The presentation is attached as **Annexure-V**.

- i. AIS-009 (Rev.2): Automotive Vehicles - Installation Requirements of Lighting and Light-signaling Devices for L Category Vehicles, their Trailers and Semi-Trailers
- ii. AIS-034 (Rev. 2) (Part 1): Provisions concerning the Approval of Filament Light Sources for use in Approved Lamp of Power-driven Vehicles and their Trailers
- iii. AIS-034 (Rev. 2) (Part 2): Provisions concerning the Approval of Gas-discharge Light Sources for use in Approved Lamps of Power-driven Vehicles
- iv. AIS-010 (Rev.2) (Part 3): Provisions concerning the Approval of Front Position Lamps, Rear Position Lamps, Stop Lamps, Direction Indicators, Rear- Registration Plate Illuminating Devices and Reversing Lamp for Vehicles of Category L and their Trailers and Semi-trailers
- v. AIS-057 (Rev. 2): Performance Requirements for Retro-Reflecting Devices for Motor Vehicles and their Trailers

Secretariat informed that the above standards are aligned with reference UN Regulations up to 31st December 2018. It was informed that in the year 2019, the UN Regulations on light and light signaling devices have undergone an administrative change and that numerous standards were combined into only three new regulations which have come into force from May 2020. Hence, with the alignment of national standards with UN Regulations up to 31st December 2018, the national standards would be technically aligned with UN Regulations and that further simplification of standards in line with new UN Regulations, will be taken up subsequently. As a first step, above five standards have been completed by the respective panel and that other fifteen standards would be completed by June 2022. Secretariat requested Committee to consider the above standards for adoption. Shri K. C. Sharma, MoRTH, expressed that it would be appropriate to consider all light and light signaling devices standards in a single package and that the adoption as well discussion on implementation can be discussed in next meeting. Also, the transitional provisions in the above standards allow a time frame of four years, which may not be acceptable. Chairman expressed that panels should strive to align with the latest reference standards and that aligning with 2018 version of UN Regulations is not the right approach. He mentioned that the approach

of alignment of national standards with earlier version of UN Regulations will not allow us the opportunity to be at par with International Regulations ever. He requested the panels to put in extra efforts to complete further alignment and regrouping of all standards at the earliest. Shri P. K. Banerjee, SIAM, expressed that India needs to be careful in adopting everything that UN Regulations prescribe, since some of the technologies prescribed may not be relevant at all. He mentioned that though the proposed standards are aligned with 2018 version of UN Regulations yet the technical requirements are not compromised. Shri A. A. Badusha, ARAI, suggested that since the proposed standards are aligned technically with UN Regulations, these may be adopted and that further alignment work can be initiated by the panel. Dr. Reji Mathai, Director ARAI, expressed that time lines can be defined for the panels to complete the task of further alignment. Committee noted the above information. Chairman directed that the five standards, which are already finalized by the respective panel, to be adopted for now and the remaining standards can be considered for adoption subsequent to their finalization.

v. AIS 035 (Rev.1) - Foot Controls for M1 and L7M :

Secretariat presented the proposal for adoption of AIS 035 (Rev. 1). It was informed that AIS 035 is revised to align with latest version of UN Regulation 35 and specifically intends to bring clarity with respect to the measurement method for lateral distances of the pedals to nearest wall to the left, when footrest is provided. The revised standard is proposed to be implemented from two years from the date of notification and that it shall be applicable only for new models. Chairman expressed that the proposed lead-time shall be reduced considering that it is only proposed for new models.

Committee noted the information and it was agreed to adopt the proposed standards. A lead time of eighteen months was agreed for implementation of the standard under CMVR.

vi. AIS 149 - Conformity of production (CoP) procedures for verifying compliance to constant speed fuel consumption norms for commercial vehicles with GVW/GCW exceeding 3.5 tonnes :

Shri A. A. Badusha, ARAI, presented the proposal for adoption of the standard. He informed that Conformity of Production (CoP) for verifying compliance to Constant Speed Fuel Consumption Norms for Commercial Vehicles with GVW/GCW exceeding 3.5 tonnes, has been mandated by Government vide notification S.O. 1072 (E) dated 23rd April 2015 and S.O. 2670 (E) dated 16th August 2017. Based on earlier discussions in the Committee headed by Bureau of Energy and Efficiency, it was agreed to formulate an AIS standard covering the administrative requirements for CoP and that needs to be notified under CMVR. The standard consists of administrative procedure for Constant Speed Fuel Consumption Conformity of Production (CSFC CoP), correction factor for BS-VI vehicles to be applied on the Fuel Economy (FE) norms equations of BS IV Heavy duty vehicles and Light and medium commercial vehicles. Committee noted the information and adopted the proposed standard.

vii. AIS 166 - Protective Devices for Two Wheelers :

Secretariat presented the proposal for adoption of AIS 166. It was informed that as per earlier discussions in CMVR-TSC based on directions of the Hon'ble High Court on safety aspects for the pillion, AIS standard formulation work was taken up. The standard covers coverage area requirements keeping in mind the functionality aspects of the vehicle along with technical requirements such as dimensions for different type/ designs of such protective devices and measurement methodology. It was highlighted that the standard is not applicable for Special Purpose Vehicles (SPVs) and Vehicles with engine capacity greater than 500cc and 11 kW in case of battery-operated vehicles. A lead-time of eighteen months was proposed for implementation of the standard under CMVR. Shri K. K. Kapila, IRF, recommended that the lead-time may be reduced to twelve months. Shri Harjeet Singh, SIAM, submitted that saree guards are already provided today and that the implementation of standard under CMVR is to standardize the design. However, the lead time is proposed considering that for the existing saree guard design tooling is in place and sufficient time is necessary for change over.

Committee noted the details and adopted the proposed standard. Also, a lead-time of twelve months was agreed for implementation of the standard.

viii. AIS 173 - Requirement for Approval of Quiet Road Transport Vehicles:

Secretariat presented the proposal for adoption of AIS-173. The standard is aligned with UN R 138 and prescribes the minimum sound level to be generated by electric vehicles at specified speeds along with the test procedure.

Committee noted the information and adopted the standard. With respect to implementation time for the standard Committee noted the submissions made by the members and it was agreed that the same will be discussed in a panel meeting and the finalized lead time will be proposed within one month.

ix. AIS 174 - AIS for Battery Operated Construction Equipment Vehicles:

Secretariat presented the proposal for adoption of AIS-174. It was informed that no UN Regulations cover requirements for electric CEVs and that reference for AIS 174 is drawn from miscellaneous standards such as European Directive EU No 167/2013, existing AIS standards for Battery operated Vehicles and AIS 168 on Electric Agricultural Tractors. The various requirements to be met by electric and hybrid CEVs are covered in the standard and were highlighted to the Committee.

Committee noted the contents and adopted the proposed standard. Committee requested AISC panel to revert back with the proposed lead-time for implementation.

x. AIS 177 - TA Requirements for Vehicle of Category L2-5 of Electric Powertrain (Combi Vehicle) :

Secretariat presented the proposal for adoption of AIS-177 on new vehicle category - L2-5. It was informed that a new vehicle category concept was presented to the Committee in the last meeting and it was agreed to formulate AIS standard on the same. The vehicle is a combination of a two and three wheeled vehicle and it is proposed that it shall comply all CMVR norms for two and three wheeled vehicles. The highlights of the standards were presented. Further, it was informed

that the standard can be implemented with immediate effect. Also, requisite changes in Vahan Portal to facilitate registration would need to be carried out.

Committee noted the contents and adopted the proposed standard.

xi. AIS 179 - AIS on Carriage of Dangerous Goods Packed in Limited Quantity and Excepted Quantity:

Secretariat presented the proposal for adoption of AIS-179 on Carriage of Dangerous Goods Packed in Limited Quantity and Excepted Quantity. The reference for the standard is drawn from ADR, IS 11466, AIS-093 (Rev. 1), UN Regulation 105 and UN Regulation 111. The standard will facilitate transportation of dangerous goods in limited quantity. It was informed that permission is sought from UNECE to use text from ADR and that the standard will be taken up for publication subsequently. The standard is proposed to be implemented from date of notification.

Committee noted the information and adopted the standard in principle. Secretariat was requested to follow up with UNECE for permission to use extract from ADR.

Secretariat proposed the adoption of numerous amendments to AIS standards as given in **Annexure-VI**. It was informed that these amendments were approved in 66th and 67th meeting of AISC and were subsequently published by AISC Secretariat. The list of amendments along with justification were circulated to the members along with agenda for the meeting. No comments have been received. Secretariat requested the Committee to formally adopt the amendments. Committee noted the information and adopted the amendments.

(b) Report on Running Subjects :

Committee reviewed the progress of the subjects currently under discussion under AISC. The presentation is attached as **Annexure-VII**.

i. Bharat NCAP :

Shri A. V. Mannikar, ARAI, presented the update on the subject. He informed that based on the directions given by Ministry, Bharat NCAP protocols, which were prepared earlier, were taken up for review with

an aim to align the same with GNCAP protocols. GNCAP protocols for year 2022-2025 are already published and were taken as reference for preparing the revised protocols. The draft protocols are now ready and they are either at par or exceed GNCAP specifications. Bharat NCAP requirements will be applicable to vehicles sold or intended to be sold in India. These will be over and above the regulatory requirements specified in CMVR which will include crash tests and assessment of fitment of safety assist technologies. He highlighted the different areas of assessment along with the details of the different crash tests to be conducted and the safety assist technologies necessary to be fitted. Shri Mannikar highlighted the assessment method and criteria for awarding different ratings. The procedure is at par with GNCAP and in some areas have even exceeded GNCAP specifications such as prescription of fuel system integrity which is not specified in GNCAP. Shri Mannikar presented the detailed comparison between the GNCAP and Bharat NCAP evaluation criteria and it was noted that specifications are at par or exceed GNCAP specifications. He acknowledged the efforts taken by various experts to prepare the protocols and proposed that the Bharat NCAP scheme may now be taken forward for implementation at the earliest. He expressed that Test Agencies can support/lead implementation of Voluntary Phase, before administrative arrangements can be put in place by MoRTH. With regards to implementation timeline, Shri Mannikar proposed that preparatory phase may be specified from April 2022 to October 2022 which would be required for readiness of processes and planning of necessary resources. The preparatory phase will be followed by a Pre-Run (Calibration Phase) from October 2022 to April 2023. This would cover the process validation, Test Lab Accreditations and correlation, and Training of Staff. Subsequently, the official launch of voluntary phase can start from April 2023. He expressed that administrative arrangements such as Implementing Agency, Vehicle Sampling Guidelines, Test Lab Accreditation, Public Relations and redressal mechanisms have to be put in place. He submitted that the draft notification for the Bharat NCAP will be prepared in consultation with Ministry. Also, the subject of initial funding for the program will require separate discussions.

Committee noted the information and congratulated the team led by Shri. Mannikar for finishing the task in the given time. Chairman informed that the subject will be reviewed by Ministry and necessary steps will be taken in due course.

Shri Balraj Bhanot, IAC, proposed that a similar scheme may be prepared for assessing two wheelers since the percentage of two-wheeler population as well as the number of accidents and fatalities is highest as compared to other vehicle categories. Shri Harjeet Singh, SIAM, highlighted that two wheelers are following all safety norms as prescribed internationally and in fact have three more regulations viz., stand, foot rest, and external projections, that are not covered under UN Regulations also. Shri Mannikar expressed that the focus presently was to cover Passenger cars only and, as and when needed in future, safety programs for other vehicle categories may be considered.

ii. Implementation plan of AIS 004 (Part 3) (Rev. 1) - EMC

Secretariat presented the proposal for implementation of AIS 004 (Part 3) (Rev. 1) i.e. 1st April 2024 for new models and 1st April 2025 for existing models. It was informed that the standard was adopted in the 57th meeting of CMVR-TSC and it was agreed to review the lead time for implementation after the infrastructure is in place. Committee noted the information. Shri K. C. Sharma, MoRTH, stated that the suggested time line is lenient.

Committee deliberated on the need for CoP for Battery Operated Vehicles and batteries. It was informed that for vehicles, Whole Vehicle Safety CoP scheme is now notified. However, the CoP for batteries needs to be notified. Shri Sharma suggested that the frequency for carrying out CoP for batteries needs to be deliberated by the panel and that it needs to be made stringent to have a positive impact on the quality of battery packs and thus avoid failures. Shri A. A. Deshpande, ARAI, proposed that transport of battery cells needs to be regulated in alignment with international practices. Additionally, battery operated vehicles which are below 250 W need to be brought under the ambit of type approval to ensure that safety checks are carried out comprehensively.

Committee noted the information.

iii. Amendment to AIS 159 - High Security Registration Plate:

Secretariat presented the update on the subject. It was informed that Amendment 1 to AIS 159 was proposed to address the following:

- i. Vehicle categories such as agricultural tractors, power tillers, modular hydraulic trailer are added in the scope of the standard.
- ii. Provisions for green strip for BS VI vehicle.
- iii. To add clarity with respect to temperature resistance test requirements and incorporation of tolerances in the third registration plate stickers for characters and numbers.
- iv. To address some technical deficit viz; tolerances in the test's specifications, to add dimensional requirements in line with CMVR 51 and its dimensional tolerances etc.

Secretariat highlighted that consensus could not be achieved with respect to provision of tolerances for the size of letters and numerals of the registration mark. In the 67th meeting of AISC, Amendment 1 was approved except for the changes where consensus could not be reached as highlighted above and that the matter is now put up for consideration of CMVR-TSC.

Issues with respect to provision of tolerance for size of letters and numerals of the registration mark were highlighted. It was submitted that CMVR 51 states that the dimensions shall not be less than those specified in the table given in CMVR 51. Even though no observation was received from any transport authorities on the certified plates, yet while working on Amendment 1 to AIS 159 need was identified to bring clarity with respect to measurement procedure and that same procedure needs to be followed by all test agencies. On the advice of MoRTH, a round robin exercise was carried out by all test agencies by following a set procedure wherein only the blackened portion of the letter/numeral was used for measurement. The data generated during the exercise highlighted the additional need of specifying tolerances for the size of letters and numerals since it was difficult to meet the specified dimensions of Rule 51, specially for small size HSRP viz., 200X100mm and 285X45mm, if only blackened portion is considered. Accordingly, it is proposed to modify CMV Rule 51 to specify measurement method and tolerances for measurement i.e. all measurements shall be done in visible hot stamped black foil area and tolerances of “-2 mm” be allowed in dimensions specified in Rule 51 for plate size: 200X100 mm and 285X45 mm and “-1 mm” for plate size 500x120 and 340x200 mm.

Shri A. A. Badusha, ARAI, expressed that with the defined / standardized procedure for measurement it will bring consistency in the results obtained by all test agencies. Shri P. K. Banerjee, SIAM, mentioned that the proposal is a good initiative to bring clarity in the overall process and is supported by the industry. Shri K. K. Kapila, IRF, appreciated the work done by the panel to bring clarity.

Committee noted the above observations and suggestions and agreed with the proposal. Secretariat was requested to submit a proposal for consideration of the Ministry.

Further, Secretariat informed that panel deliberated on the feasibility of new colour scheme for vehicles running on alternate fuels. The current colour schemes as per SO 2339 (E) dated 14.07.2020 were presented. Panel deliberated on the subject and it was proposed that instead of going for different colour scheme for registration plate, emphasis shall be given to use more colour scheme for 3rd registration plate sticker to identify the vehicles running on Alternate Fuels. Outcome of the panel discussion was informed to MoRTH on 24.03.2022. Committee noted the information.

iv. Other Running Subjects:

Secretariat presented the progress on the following subjects on which new AIS standards or revision of existing AIS standards are under formulation. It was informed that various new technology subjects have been taken up by AISC to prepare new standards in line with UN Regulations and UN Global Technical regulations.

- a) AIS-180: Construction of vehicles carrying Hazardous Goods
- b) AIS-184: Driver Drowsiness Attention Warning System for M & N category vehicles
- c) Advanced Emergency Braking Systems (AEBS) - AIS-162 for M2, M3, N2 and N3 category vehicles
- d) Advanced Emergency Braking Systems (AEBS) - AIS-185 for M1 and N1 Category Vehicles
- e) Revisions of AIS 100 (Pedestrian Protection Systems)
- f) AIS-101 (Protection of Fuel Systems in Rear Impact)
- g) Revisions of AIS standards for light and light signaling devices.

- h) Battery Durability
- i) Advanced Steering Command Functionalities (ACSF)
- j) Lane Departure Warning System (LDWS)
- k) Blind Spot Identification
- l) Cyber Security and Management System (CSMS)
- m) Software Updates and Management System (SUMS)
- n) Automated Lane Keeping System (ALKS)
- o) Moving off Information System
- p) Event Data Recorder (EDR)
- q) Artificial Intelligence
- r) ADAS/DCAS (Dynamic Control Assist Systems)
- s) Functional Requirements for Automated Driving (FRAV) & Validation methods for Automated Driving (VMAD)
- t) Super Single Tyre
- u) AIS (AIS-178) on Adapted Vehicles of category Two wheelers, Three wheelers and Tricycles
- v) AIS-181: Approval of Tank Vehicles with regard to Rollover Stability
- w) AIS-183: Type Approval Requirements for Three Wheeled Moped of L1-1 Category

Committee noted the information. Technical Panels were requested to complete the task in a time bound manner. It was agreed to review the progress in the next meeting.

v. New / Revised IS standards for implementation under CMVR :

Secretariat informed that BIS had submitted a list of IS standards which are published and had requested for their implementation under CMVR. The proposal for lead-time was discussed by respective TED committees and AISC and the following proposal is put up for consideration of the Committee.

S. No.	IS standard	Subject	Proposed Timeline
1.	IS: 8654: 2019	Brake Fluid	1 st April 2023
2.	IS: 15636:2012	Tyres	1 st April 2023
3.	IS: 16905: 2018	FUPD	1 st April 2023
4.	IS 13942 (Part 1): 2019	External Projection for M1	1 st April 2023
5.	IS: 11921:2020	CSFC	1 st April 2023
6.	IS 13944: 2021	Window Retention	1 st April 2023
7.	IS: 13988:2014	Gradeability	1 st April 2023
8.	IS: 15223:2020	Interior Fitting for M1	1 st April 2023
9.	IS: 13943: 2017	Passenger cars Wheel Guards	1 st April 2024
10.	IS: 11852:2019	Brakes for M &N	1 st April 2025 (new models) / 1 st April 2026 (existing models)
11.	IS 14812:2021	Rear Underrun Protection Device	1 st April 2024

With respect to lead time for brake standards, it was noted that the earlier version of IS 11852:2013 has been recently notified i.e. 1st April 2021 for new models and 1st April 2022 for existing models. In view of the time required for development as per new standard and the test cycle it is proposed to implement the revised standard with a gap of four years from the date of implementation of IS 11852:2013. Committee noted the observation.

6.0 Finalized Draft AIS (hosted on MoRTH Website) :

Secretariat informed that the finalized draft of the following standards was hosted on MoRTH website to seek comments from public at large. These standards were adopted in the earlier meeting of CMVR-TSC. Secretariat requested the Committee to allow publishing of the standards.

- i. AIS-164: Constructional and Functional Requirements for Insulated Vehicles
- ii. AIS-169: Guidelines on Provisions for Adapted Vehicles of categories M1, N1 and M2

Committee noted the information and it was agreed to publish the standards.

7.0 Report from BIS :

Secretariat informed that BIS had submitted a list of additional standards published for preparing an implementation plan for the same. The list will be taken up for discussion in the next meeting of AISC. Further, it was informed that revised standard for pass by noise measurement of 4 wheelers is finalized and will be published shortly.

Shri R. R. Singh, BIS, suggested that as and when document is circulated for wide circulation AISC can deliberate on the implementation plan to hasten the process of adoption of IS standards under CMVR. Committee noted the progress. AISC was requested to consider BIS views on deliberation of proposed time line for implementation of IS standards.

Shri R.P. Vasudevan, TMA, requested BIS to submit the list of IS standards developed under FAD11 Sectional Committee on Agricultural Tractors to CMVR-TSC / AISC for consideration. Committee requested Shri Singh to coordinate between FAD11 and AISC secretariat on the subject.

Shri K. C. Sharma, MoRTH, requested BIS to explore the feasibility of issuing quality control order for Diesel Exhaust Fluid (DEF). It was highlighted that the subject has been under discussion for some time but is not getting concluded due to lack of clarity on the authority to issue the said quality control order. He requested BIS to deliberate on the subject and to take it up appropriately. Shri R. R. Singh requested MoRTH to put up the submission to DG, BIS for consideration and necessary action.

8.0 Review of Notifications :

Secretariat informed that various safety regulations were adopted in the earlier meeting of CMVR-TSC viz., implementation of revised pass by noise standard for 2 and 3 wheelers, implementation of Revision 1 of AIS-071 (Part 1): 2019:

Identification of Controls Tell-Tales and Indicators, implementation of IS: 14225:2017 Locking System and Door Retention Components (SO notification), Implementation of IS 16712:2018: Automotive vehicles: Spray Suppression System for Two Wheeled Vehicles etc. Committee noted that the work is in progress on various subjects and that the notifications will be released in due course.

9.0 Any Other Point :

a) Fire Alarm Systems (FAS) and Fire Protection Systems (FPS) :

Shri P. K. Banerjee, SIAM, submitted the concerns of the industry on the subject. He highlighted that suppliers have shown reservations in meeting the specifications of the prescribed standard. Shri P.S. Gowrishankar, SIAM, expressed that since the requirements for putting fire protection system in buses are notified with effect from January 2023, it leaves manufacturers and suppliers inadequate time to do the required development work. He requested that the implementation time may be extended. Chairman informed that DRDO has already called for expression of interest for five ToT (Transfer of Technology) licenses. OEMs may like to share this information with their vendors.

b) Vehicle Tracking Devices :

Shri P. K. Banerjee, SIAM, highlighted the issue of use of spurious vehicle tracking devices being used in market. He informed that earlier MoRTH had issued an advisory to States stating that vehicle tracking device approved as per standards prescribed under CMVR shall be fitted on vehicles. However, Ministry may like to take up Industry's concern with the States again for effective implementation. Chairman informed that Ministry will review the request.

c) BNCAP - Nomination from ACMA :

Shri Uday Harite, ACMA, proposed nomination of ACMA members for future deliberations on Bharat NCAP. Shri A. V. Mannikar informed that futuristic technologies which may become part of protocols beyond 2025 will require experts from ACMA. Committee noted the information and agreed with the proposal.

d) Alcohol Interlock :

Shri K. K. Kapila, IRF, proposed that in conjunction with standard on driver drowsiness, standard on alcohol interlock may also be initiated. He informed that regulation on the subject is available in Europe and that it will promote road safety. He expressed that he will submit the provisions available in Europe to Ministry for consideration. Committee noted the information.

Meeting ended with thanks to the Chair.
