



	<b>भारतीय मानक ब्यूरो</b> <b>BUREAU OF INDIAN STANDARDS</b>
	<b>(PETROLEUM, COAL &amp; RELATED PRODUCTS DEPARTMENT)</b>
<b>MINUTES</b>	
<b>27 October 2023, Friday, 1030 - 1330 h</b>	
<b>Lubricants And their Related Products Sectional Committee</b>	<b>15<sup>th</sup> Meeting</b>
<b>Chairperson: Dr. Y P Rao, In Personal Capacity</b>	<b>Member Secretary: Ms. Kreeti Das</b>

## ITEM 0 WELCOME AND INTRODUCTORY REMARKS

### 0.1 Welcome by BIS

Ms. Kreeti Das, Sc.C, PCD, welcomed all members to the 15<sup>th</sup> meeting of PCD 25. She informed all members about new initiatives taken by BIS such as reviewing composition of committee and participation of members and curtailing committee size to maximum 30. Other initiatives include mapping of standards against government policies, spreading awareness about standards among general public by means of standard clubs and quality connect programs, revision of standards through R&D projects.

### 0.2 Opening Remarks by the Chairperson

Dr. Y P Rao, Chairperson, PCD 25 welcomed all members to the physical meeting and emphasized the importance of face-to-face meetings. He requested all members to contribute actively by deliberating the items and taking decisions keeping the global trends and end consumer interest in view.

### 0.3 The attendance of the meeting is given in **Annex I**.

## ITEM 1 CONFIRMATION OF THE MINUTES OF THE 14<sup>TH</sup> MEETING OF PCD 25

The committee **REVIEWED** the comments of Dr. Kavita Rai and **ACCEPTED** them. The Committee **CONFIRMED** the rest of the minutes, as circulated.

## ITEM 2 TITLE, SCOPE AND COMPOSITION OF PCD 25

**2.1** The Committee **NOTED** the title and scope of PCD 25

**2.2** The Committee **NOTED** the ISO liaisons for PCD 25.

**2.3** The Committee **NOTED** item 2.4 of the agenda and created a panel for review of composition of PCD 25:

- a) Dr. Y P Rao, Chairperson PCD 25 – Convenor
- b) Shri Mukul Maheshwari, Convenor PCD 25:1
- c) Shri Siva Kasturi, Convenor PCD 25:2
- d) Dr. T Singh, Convenor PCD 25:3
- e) Representative from SIAM



2.4 The Committee **REVIEWED** item 2.4.4 of the agenda regarding co-option requests and **DECIDED** the following:

a) Co-option of Petroleum Re-refiners' Association of India in PCD 25:1/P4 agreed with Dr. S V Nivsarkar and Shri Philip Mathew as representatives

b) Co-option of Arteco Coolants in PCD 25:1 and PCD 25:1/P1 with Shri Amol Chore as representative

2.5 The Committee **NOTED** item 2.5 of the agenda regarding panels under PCD 25 and its Subcommittees.

### ITEM 3 R&D PROJECTS TO SUPPORT STANDARDIZATION

The Subcommittee **NOTED** item 3 of the agenda regarding R&D project provision introduced by BIS.

### ITEM 4 ACTIVITIES OF PCD 25


4.1 The Committee **NOTED** the program of work and list of standards published under PCD 25 as given in Annex II of the agenda.

4.2 Decision of Committee on recommendations of PCD 25:SC 1 is given in **Annexure A**.

4.3 Decision of Committee on recommendations of PCD 25:SC 2 is given in **Annexure B**.

4.4 Decision of Committee on recommendations of PCD 25:SC 3 is given in **Annexure C**.

#### 4.5 Draft Standards/Amendments for Approval for Wide Circulation

Sl. No.	Indian Standard/Document No.	Decision in Previous Meetings	Committee Decision
i.	PCD 25(23378)P <b>Food Grade and Biodegradable Greases</b>	<ul style="list-style-type: none"> <li>The Committee <b>DECIDED</b> to issue the draft provided by Dr. T Singh into P draft circulation for 1 month.</li> <li>Draft issued into P-draft circulation for 1 month with document no. PCD 25 (23378)P on 25 Aug 2023. Comments received.</li> </ul>  <p>Comments%20on%20PCD%2025(23378</p>	<ul style="list-style-type: none"> <li>The Committee <b>RECOMMENDED</b> to discuss the comments in meeting of PCD 25 panel 5.</li> </ul>

#### 4.6 Draft Under Preparation

Sl. No.	Indian Standard/New Subject	Decision in Previous Meetings	Committee Decision
i.	<b>Food Grade and Biodegradable Lubricants</b>	<ul style="list-style-type: none"> <li>Panel 1 created under the Convenorship of Dr Kavita Rai for food grade and biodegradable lubricants.</li> <li>The panel was of the opinion that requirement for food grade and biodegradable lubricant may be incorporated in existing standards for application-wise lubricants</li> <li>She informed that ISO 15380 "Lubricants, industrial oils and related</li> </ul>	<ul style="list-style-type: none"> <li>The Committee <b>NOTED</b> the status of the project and <b>DIRECTED</b> BIS to issue the latest version of ISO 15380 into WC for 2 months for adoption.</li> </ul>



		<p>products (class L) — Family H (Hydraulic systems) — Specifications for hydraulic fluids in categories HETG, HEPG, HEES and HEPR” covers biodegradable base oil for hydraulic system and recommended Committee to adopt it for biodegradable hydraulic oil standard.</p> <ul style="list-style-type: none"> <li>Hence, the Committee <b>DECIDED</b> to issue ISO 15380 into WC for 2 months for identical adoption</li> </ul>	
ii.	<b>Greases for Solar Panels/Dielectric Grease</b>	<ul style="list-style-type: none"> <li>In the 8<sup>th</sup> meeting, the Committee noted the need for Indian Standard on greases for solar panels/ dielectric grease and requested Dr T. Singh, Convener, PCD 25:3, to look into the subject and present a white paper.</li> <li>In last meeting, the Committee <b>REQUESTED</b> Lubrizol to assist Dr. T Singh in preparing a white paper on the subject.</li> <li>Lubrizol nominated Shri Sandeep Sarode and Shri Nitin Chaudhari to assist Dr. T Singh in preparing a white paper on the subject.</li> </ul>	<ul style="list-style-type: none"> <li>The Committee <b>NOTED</b> that there has been no progress on the subject and <b>REQUESTED</b> Dr. T Singh to coordinate with Lubrizol for preparation of white paper.</li> </ul>

#### 4.7 Revision/Reaffirmation of Standards Due for Review

Sl. No.	Indian Standard	Due Date	Committee Decision
1.	<b>IS 8406 : 1993</b> <b>Gear lubricants for enclosed industrial gear drives - Specification</b>	May 2021	<ul style="list-style-type: none"> <li>Committee <b>REAFFIRMED</b> the standard with revision</li> </ul>
2.	<b>IS 1012 : 2002</b> <b>Turbine lubricating oils - Specification</b>	February 2023	<ul style="list-style-type: none"> <li>Committee <b>REAFFIRMED</b> the standard</li> </ul>
3.	<b>IS 1115 : 1986</b> <b>Specification for general purpose cutting oil, soluble</b>	February 2023	<ul style="list-style-type: none"> <li>Committee <b>REAFFIRMED</b> the standard with revision</li> </ul>
4.	<b>IS 11186 : 1985</b> <b>Specification for synthetic grinding fluid</b>	February 2023	<ul style="list-style-type: none"> <li>Committee <b>REAFFIRMED</b> the standard with revision</li> </ul>



5.	<b>IS 11656 : 1986</b> <b>Specification for antiwear hydraulic oil extra heavy duty type</b>	February 2023	<ul style="list-style-type: none"> <li>Committee <b>REAFFIRMED</b> the standard with revision</li> </ul>
6.	<b>IS 14234 (Part 1) : 2002</b> <b>Lubricants for air - Cooled spark - Ignition engines - Specification: Part 1 two - Stroke spark - Ignition engines</b>	February 2023	<ul style="list-style-type: none"> <li>Committee <b>REAFFIRMED</b> the standard</li> </ul>
7.	<b>IS 14384 : 1996</b> <b>Colloidal graphite dispersion in oil - Specification</b>	February 2023	<ul style="list-style-type: none"> <li>Committee <b>REAFFIRMED</b> the standard with revision</li> <li>The Committee <b>REQUESTED</b> Dr. T Singh to provide the revised draft by 15 Nov 2023</li> </ul>
8.	<b>IS 14385 : 1996</b> <b>Aluminium cold rolling oils - Specification</b>	February 2023	<ul style="list-style-type: none"> <li>Committee <b>REAFFIRMED</b> the standard with revision</li> </ul>
9.	<b>IS 14779 : 2000</b> <b>General purpose oil based temporary corrosion preventives - Specification</b>	May 2021	<ul style="list-style-type: none"> <li>Committee <b>REAFFIRMED</b> the standard</li> </ul>
10.	<b>IS 14847 : 2000</b> <b>Lithium complex grease for industrial purposes - Specification</b>	May 2021	<ul style="list-style-type: none"> <li>Committee <b>REAFFIRMED</b> the standard</li> </ul>
11.	<b>IS 15112 (Part 1) : 2002 / ISO 12925-1 : 1996</b> <b>General classification of lubricants, industrial oils and related products: Part 1 class L</b>	February 2023	<ul style="list-style-type: none"> <li>Committee <b>REAFFIRMED</b> the standard with revision</li> </ul>
12.	<b>IS 1589 : 1994</b> <b>Oil, cylinder - Specification</b>	May 2021	<ul style="list-style-type: none"> <li>Committee <b>REAFFIRMED</b> the standard with revision</li> </ul>



13.	<b>IS 1628 : 1986</b> <b>Specification for axle oil</b>	February 2023	<ul style="list-style-type: none"> <li>Committee <b>REAFFIRMED</b> the standard with revision</li> </ul>
14.	<b>IS 1758 : 1986</b> <b>Specification for jute batching oil</b>	February 2023	<ul style="list-style-type: none"> <li>Committee <b>REAFFIRMED</b> the standard with revision</li> </ul>
15.	<b>IS 5759 : 2006</b> <b>Antifreeze Coolant - Specification</b>	February 2023	<ul style="list-style-type: none"> <li>Committee <b>REAFFIRMED</b> the standard with revision</li> </ul>
16.	<b>IS 6049 : 1971</b> <b>Code of practice for application of temporary corrosion preventives</b>	February 2023	<ul style="list-style-type: none"> <li>Committee <b>REAFFIRMED</b> the standard with revision</li> </ul>
17.	<b>IS 6263 : 2018</b> <b>Volatile corrosion inhibitor (VCI) treated paper - Specification</b>	March 2023	<ul style="list-style-type: none"> <li>Committee <b>REAFFIRMED</b> the standard</li> </ul>
18.	<b>IS 16775 : 2018</b> <b>ISO / TS 11365:2011</b> <b>Petroleum and related products - Guidance for the maintenance and use of triaryl phosphate ester turbine control fluids</b>	March 2023	<ul style="list-style-type: none"> <li>The Committee <b>REAFFIRMED</b> the standard with revision</li> <li>The Committee <b>DIRECTED</b> BIS to issue the latest ISO 11365 : 2017 into WC for 2 months for adoption</li> </ul>
19.	<b>IS 14234 (Part 2) : 2017</b> <b>Lubricants for Spark-Ignition Air-Cooled Gasoline Engines - Specification Part 2</b> <b>Four-Stroke Spark-Ignition Air-Cooled Engines for Scooters, Mopeds and Motorcycles</b>	March 2022	<ul style="list-style-type: none"> <li>Committee <b>REAFFIRMED</b> the standard with revision</li> </ul>



Sl. No.	Indian Standard	Committee Decision
1.	<b>IS 4578 : 1997</b> <b>Lubricants - Lubricating oil for refrigeration machinery - Specification</b>	<ul style="list-style-type: none"> <li>Shri Abhijit Sarkar informed that he has reviewed the standard and no major updates required. Hence, revised draft may be prepared by incorporating all amendments and making editorial corrections</li> <li>The Committee <b>DIRECTED</b> BIS to prepare the revised draft of the standard and issue into WC for 2 months.</li> </ul>
2.	<b>IS 11186 : 1985</b> <b>Specification for synthetic grinding fluid</b>	<ul style="list-style-type: none"> <li>The Committee thanked Shri Shakti Mishra, HPCL, for the revised draft. The Committee <b>DIRECTED</b> BIS to issue the revised draft into WC for 2 months.</li> </ul>
3.	<b>IS 12790 : 1999</b> <b>Non - Soap grease - Specification</b>	<ul style="list-style-type: none"> <li>The Committee thanked Dr. T Singh for providing the revised draft and <b>DIRECTED</b> BIS to issue the revised draft into WC for 2 months.</li> </ul>
4.	<b>IS 14384 : 1996</b> <b>Colloidal graphite dispersion in oil - Specification</b>	<ul style="list-style-type: none"> <li>The Committee <b>REQUESTED</b> Dr. T Singh to provide the revised draft by 15 Nov 2023 and <b>DIRECTED</b> BIS to issue the revised draft into WC for 2 months.</li> </ul>
5.	<b>IS 14745 : 1999</b> <b>Thermic fluids - Specification</b>	<ul style="list-style-type: none"> <li>The Committee <b>DIRECTED</b> BIS to follow up with Shri Shakti Mishra, HPCL, to provide the revised draft of the standard by end of November 2023.</li> </ul>

## ITEM 5 INTERNATIONAL ACTIVITY

### 5.1 P Membership and Participation

The Committee **REVIEWED** item 4.1 of the agenda and **DECIDED** as given in the table below:

Sl. No.	ISO Technical Committee/Subcommittee/WG	Registered Committee Member/Expert	Committee Decision
1.	ISO/TC 28 Petroleum and related products, fuels and lubricants from natural or synthetic sources	Dr. Raj Kumar Singh, CSIR-IIP	Committee <b>AGREED</b> with the nomination from IIP and <b>RECOMMENDED</b> to register Dr. Raj Kumar Singh in ISO/TC 28 with approval of PCDC.
		Shri Mukul Maheshwari, IOCL R&D	Committee <b>AGREED</b> with the nomination from IOCL (R&D) and <b>RECOMMENDED</b> to register Shri Mukul Maheshwari in ISO/TC 28 with approval of PCDC.



		Dr. T Singh, BPCL	Retain
		Shri Siva Kasturi, Shell India Markets Pvt Ltd.	Due to his extensive experience in lubrication technology with respect to OEM requirements and his role as Convenor of PCD 25:SC 2, the Committee <b>RECOMMENDED</b> to register Shri Siva Kasturi in ISO/TC 28 with approval of PCDC.
		Head, PCD	Retain
		Ms. Kreeti Das, Member Secretary	Retain
2.	ISO/TC 28/SC 4 Classifications and specifications	Dr. Kavita Rai, IOCL R&D	Retain
		Shri Mukul Maheshwari, IOCL R&D	Committee <b>AGREED</b> with the nomination from IOCL (R&D) and <b>RECOMMENDED</b> to register Shri Mukul Maheshwari in ISO/TC 28/SC 4 with approval of PCDC.
		Shri Siva Kasturi, Shell India Markets Pvt Ltd.	Due to his extensive experience in lubrication technology with respect to OEM requirements and his role as Convenor of PCD 25:SC 2, the Committee <b>RECOMMENDED</b> to register Shri Siva Kasturi in ISO/TC 28/SC 4 with approval of PCDC.
		Dr. T Singh, BPCL, Mumbai	Due to his long association with lubrication technology and knowledge of greases as well as his role as Convenor of PCD 25:3, the Committee <b>RECOMMENDED</b> to register Dr. T Singh in ISO/TC 28/SC 4 with approval of PCDC.
		Head, PCD	Retain
		Ms. Kreeti Das, Member Secretary	Retain

**ITEM 6 VOTE OF THANKS**

The meeting ended with a vote of thanks from BIS to Chairperson and all members for their participation and contribution.



**ANNEX I**  
**Meeting Attendance**  
**(Clause 0.3)**

**Committee Members:**

1. Dr. Y P Rao, In Personal Capacity, Chairperson
2. Shri Mukul Maheshwari, IOCL (R&D), Faridabad
3. Shri Ajay Kumar Harinarain, IOCL (R&D), Faridabad
4. Dr. Kavita Rai, IOCL (R&D), Faridabad
5. Shri Abhijeet Chakraborty, IOCL (Mktg), Mumbai
6. Shri H S Negi, IOCL (Mktg), Mumbai
7. Dr. Tarunendr Singh, BPCL, Mumbai
8. Shri Abhijit A Sarkar, HPCL, Mumbai
9. Shri H Ramakrishnan, Chennai Petroleum Corporation Limited, Chennai
10. Shri Anand Kumar, Afton Chemicals, Mumbai
11. Shri Siva Kasturi, Shell India Markets Pvt Ltd., Mumbai
12. Shri Bhaskar N Barsagade, National Test House
13. Shri S S Pakle, DGQA
14. Shri Dhanesh Rathod, The Western India Genuine Ghee Company Private Limited, Mumbai
15. Dr. Krishna Koorella, Ashok Leyland, Chennai
16. Shri P Gowrishankar, Tata Motors, Pune
17. Shri Umesh Dwivedi, Gulf Oil Lubricants India Limited, Mumbai
18. Shri K Sreeramchandran, Reliance Industries Limited, Mumbai
19. Shri K Balasubramanian, Reliance Industries Limited, Mumbai
20. Shri Yogesh Mahajan, Bajaj Auto Ltd., Pune
21. Dr. Sitaram Dixit, Consumer Guidance Society of India, Mumbai

**Invitee (for agenda on RRBOs)**

1. Shri Anant Bhargava, IFP Petro Products Pvt. Ltd., Ghaziabad
2. Shri Sanjay Bhargava, IFP Petro Products Pvt. Ltd., Ghaziabad

**BIS Secretariat**

1. Ms. Kreeti Das, Sc. C, PCD





**Annexure A**

	<b>भारतीय मानक ब्यूरो</b> <b>BUREAU OF INDIAN STANDARDS</b>
	<b>(PETROLEUM, COAL &amp; RELATED PRODUCTS DEPARTMENT)</b>
<b>DRAFT MINUTES</b>	
<b>25 October 2023, Tuesday, 1000 - 1200 h</b>	
<b>AUTOMOTIVE LUBRICANTS &amp; SPECIALITIES (INCLUDING BRAKE FLUID AND RADIATOR COOLANT) SUBCOMMITTEE</b>	<b>8<sup>th</sup> Meeting</b>
<b>Convenor: Shri Mukul Maheshwari, IOCL (R&amp;D)</b>	<b>Member Secretary: Ms. Kreeti Das</b>

**ITEM 0 OPENING OF THE MEETING**

**0.1 Welcome address**

On behalf of BIS, Ms. Kreeti Das, Sc. C, welcomed all members to the 8<sup>th</sup> meeting of PCD 25:SC 1 and invited Convenor, Shri Mukul Maheshwari to give opening remarks.

**0.2 Opening remarks by the Convenor**

Shri Mukul Maheshwari extended a warm welcome to all members and invited members to contribute actively in the discussions of the meeting.

**0.3 The attendance of the meeting is given in Annex I.**

**ITEM 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING**

The Subcommittee *CONFIRMED* the minutes of the last meeting, as circulated.

**ITEM 2 TITLE, SCOPE AND COMPOSITION OF PCD 25:SC 1**

**2.1** The Subcommittee *NOTED* the title and scope of the PCD 25:SC 1 and *RECOMMENDED* editorial correction (addition of comma after automotive applications) in the scope:

**Scope:** To formulate Indian Standards for lubricants and other specialty products for automotive applications, including brake fluid, coolant and other fluids as applicable to electric vehicles (hybrid and battery electric vehicles) and related codes of practice for their storage, handling, transport and applications.

**COMMITTEE DECISION:** The Committee *ENDORSED* the recommendation of SC 1.



Bureau of Indian Standards

15<sup>th</sup> Meeting of PCD 25

2.2 The Subcommittee *REVIEWED* the list of standards proposed under PCD 25:SC 1 (Annex I of agenda) and *RECOMMENDED* to retain IS 1628 : 1986 in PCD 25:SC 2. The final approved list of standards under PCD 25:SC 1 is given below:

### List of Indian Standards under the Scope of PCD 25:1

Sl. No.	Indian Standard	Title
1.	IS 1118 : 2019	Gear lubricants, multipurpose (Extreme Pressure Gear Oil) - specification (Second Revision)
2.	IS 5759 : 2006	Antifreeze coolant - Specification (Second Revision)
3.	IS 8654 : 2019	Automotive hydraulic brake fluid, heavy duty - Specification (Third Revision)
4.	IS 13656 : 2019	Internal combustion engine crankcase oils for automotive application (Diesel And Gasoline) - Specification (Third Revision)
5.	IS 14234 (Part 1) : 2002	Lubricants for air - Cooled spark - Ignition engines - Specification: Part 1 Two - Stroke spark - Ignition engines (First Revision)
6.	IS 14234 (Part 2) : 2017	Lubricants for Spark-Ignition Air-Cooled Gasoline Engines Specification Part 2 Four-Stroke Spark-Ignition Air-Cooled Engines for Scooters, Mopeds and Motorcycles

**COMMITTEE DECISION:** The Committee *ENDORSED* the recommendation of SC 1 to retain IS 1628 in SC 2 and *NOTED* the list of standards under scope of SC 1.

### 2.3 Update in Nomination

The Subcommittee *NOTED* that BIS Sectt has sent letters/e-mails to heads of organizations that are members of PCD 25:1 and that updated nominations are received from

- Ashok Leyland, Chennai
- HPCL, Mumbai
- RDSO, Lucknow

However, updated nominations are still awaited from Balmer Lawrie and Gulf Oil. The Subcommittee *DIRECTED* BIS to follow up with these organizations for sending updated nominations.

The Subcommittee also *RECOMMENDED* to co-opt Tata Motors in the Subcommittee as it is a relevant stakeholder for automotive lubricants and specialty chemicals.

**COMMITTEE DECISION:** The Committee *ENDORSED* the recommendations of SC 1.



2.4 The Subcommittee *NOTED* item 2.4.2 of the agenda regarding the panels under SC 1.

**ITEM 3 R&D PROJECTS TO SUPPORT STANDARDIZATION**


The Subcommittee *NOTED* item 3 of the agenda regarding R&D project provision introduced by BIS.

**Item 4 ACTIVITIES OF AUTOMOTIVE LUBRICANTS & SPECIALITIES (INCLUDING BRAKE FLUID AND RADIATOR COOLANT) SUBCOMMITTEE, PCD 25:1**

**4.1 Draft Standards/Amendments for Approval for Wide Circulation**

Sl. No.	Indian Standard/Document No.	Decision in Previous Meetings	Subcommittee Recommendation
i.	<p><b>Revision of IS 14234 (Part 2) : 2017</b></p> <p><b>Lubricants for Spark-Ignition Air-Cooled Gasoline Engines – Specification Part 2 Four-Stroke Spark-Ignition Air-Cooled Engines for Scooters, Mopeds and Motorcycles</b></p>	<ul style="list-style-type: none"> <li>In 11<sup>th</sup> meeting, the Committee requested Dr. Pankaj Bhatnagar to prepare draft revision of the standard and to ensure that the standard is in alignment with the JASO (Japanese Standards Organization) latest specification, ISO and API specifications.</li> <li>Dr. Bhatnagar, IOCL R&amp;D, had provided revised draft based on JASO T 903 : 2016 version and draft was under editing for issuance of WC.</li> <li>However, in last meeting, it was informed that JASO T 903 : 2023 version is published and the Subcommittee <i>REQUESTED</i> Dr. Bhatnagar to prepare the revised draft incorporating provisions of latest JASO and provide the revised draft to BIS</li> <li>The Subcommittee <i>RECOMMENDED</i> BIS to circulate the revised draft into WC for 2 months.</li> </ul>	<ul style="list-style-type: none"> <li>The Subcommittee thanked Dr. Bhatnagar for the revised draft and <i>DIRECTED</i> BIS to circulate the draft into WC for 2 months.</li> </ul> <p><b>COMMITTEE DECISION: The Committee <i>ENDORSED</i> the recommendations of SC 1.</b></p>
ii.	<p><b>PCD 25 (22088)</b></p> <p><b>Mineral and Re-Refined Base Oil – Specification</b></p>	<ul style="list-style-type: none"> <li>Panel 4 created under Convenorship of Shri Ajay Kumar Harinarain.</li> <li>Panel 4 met on 25 Aug 2023 and 10 Oct 2023 to resolve comments received on WC draft.</li> <li>Consensus could not be achieved over the values of Ca and other trace metal content prescribed in the document. Re-refiners (IFP) stated that they have no control on feedstock, hence, it will be difficult to achieve 10 ppm levels for Ca and trace metals. OMCs stated that if the re-refined base oil does not meet the 10 ppm limit for Ca and trace metals, the base oil cannot be used for end product formulation.</li> <li>Hence, panel requested IFP to co-ordinate submission and testing of re-</li> </ul>	<ul style="list-style-type: none"> <li>The Subcommittee <i>RECOMMENDED</i> to discuss the issue in PCD 25 meeting.</li> </ul> <p><b>COMMITTEE DECISION: Committee <i>NOTED</i> the matter of contention with respect to Ca and trace metal content.</b></p> <p><b>IOCL R&amp;D informed that 5 samples of RRBO were submitted by IFP for testing. IFP informed that 3 of these samples were manufactured by IFP using different feedstocks and two samples were manufactured by Ranjana Group.</b></p>



		<p>refined base oil samples to OMCs/testing laboratories to generate data for Ca and trace metal content.</p> <ul style="list-style-type: none"> <li>This data will be presented to PCD 25:1 and PCD 25 for decision.</li> </ul>	<p>Chairperson remarked that samples from different re-refiners are required to arrive at a conclusion. Hence, PCD 25 <b>DIRECTED</b> BIS to approach Petroleum Re-refiners Association of India (PRAI) for samples, at least 20 samples, from different re-refiners. The Committee <b>REQUESTED</b> IOCL, BPCL, and HPCL to test these samples in their labs. The coordinators for IOCL – Dr. Kavita Rai, BPCL – Dr. T Singh, and HPCL – Shri Abhijit Sarkar.</p> <p>The Committee <b>DIRECTED</b> BIS to send letters by mid of November 2023 so that samples may be submitted and testing may be done by end of November.</p> <p>The Committee also <b>REVIEWED</b> the panel discussion on WC comments and the document prepared after incorporating modifications by the panel. After thorough deliberations, Chairperson <b>RECOMMENDED</b> few changes in the document from his vast experience in lubricant sector and the same were agreed</p> <div style="text-align: center;">  <p>PCD25%20(22088)% 20WC_PCD%2025%20</p> </div> <p>The Committee <b>REQUESTED</b> Panel to incorporate the changes and the document may then be finalized with the approval of Convenor of Panel, Convenor of SC 1, and Chairperson of PCD 25.</p>
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4.2 Drafts Under Preparation

Sl. No.	Indian Standard/New Subject	Decision in Previous Meetings	Subcommittee Recommendation
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<p>i.</p>	<p><b>Revision of IS 5759 : 2006</b> <b>Antifreeze Coolant - Specification</b></p>	<ul style="list-style-type: none"> <li>• Panel 1 under Convenorship of Shri Harsh Vardhan Jain, Vinni chemicals, created under PCD 25:SC 1 for revision of the standard.</li> <li>• The Committee requested Shri Harshvardhan Jain, Vinni chemicals, to collect the data for low phosphate coolants and request all the member OEMs of this Committee for confirmation of correctness of the data, limits and test methods.</li> <li>• The Committee requested Shri Neville Colaco, BASF, to collect the data for low silicate and after confirmation of correctness, he would send the details to Shri Harshvardhan Jain, for preparing the draft.</li> <li>• Additional changes recommended by Committee in the draft:             <ul style="list-style-type: none"> <li>a) To delete colour and provide proper justification for the same in the Foreword</li> <li>b) Alternate methods to be incorporated in testing anions and cations. For organic material and additives, HPLC, GC/GCMS and for cations, ICP can be used along with Ion Chromatograph.</li> </ul> </li> <li>• During 11<sup>th</sup> meeting, the Committee further suggested to categorize the coolant based on phosphate limit into the following varieties:             <ul style="list-style-type: none"> <li>(a) Pure OAT (Organic Acid Technology);</li> <li>(b) Lowbrid; and</li> <li>(c) Hybrid</li> </ul> </li> <li>• One meeting of the panel was conducted and the Panel informed that it will look into redrafting the standard, categorizing it based on applications, as follows:             <ul style="list-style-type: none"> <li>a) Automotive;</li> <li>b) Farm/Construction;</li> <li>c) Stationary; and</li> <li>d) Electric.</li> </ul> </li> <li>• During 12<sup>th</sup> meeting, Chairman PCD 25 requested the Panel and Subcommittee to relook into the classification based on chemistry and then specify the applications under each chemistry.</li> <li>• During last meeting, the Subcommittee <i>REQUESTED</i> Shri Harsh Vardhan Jain to convene meetings for the panel and</li> </ul>	<ul style="list-style-type: none"> <li>• Shri Harsh Vardhan informed the Subcommittee that panel meeting was held 2-3 weeks back and the revised draft was discussed.</li> <li>• He confirmed that a revised draft would be circulated among panel members by 1<sup>st</sup> week of November and by 1<sup>st</sup> week of December the panel can provide revised draft to SC 1 for decision on WC draft circulation.</li> <li>• The Subcommittee <i>AGREED</i> with the plan of Shri Harsh Vardhan Jain.</li> </ul> <p><b>COMMITTEE DECISION: The Committee <i>ENDORSED</i> the recommendation of SC 1.</b></p>
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		<p>provide a timeline for revising the standard. The Subcommittee also <i>AGREED</i> to co-option of experts from Tata Motors and Artec Coolants in the Panel.</p>	
<p>ii.</p>	<p><b>Amendment to IS 13656 : 2019</b> <b>Internal combustion engine crankcase oils for automotive application (Diesel And Gasoline) - Specification</b></p>	<ul style="list-style-type: none"> <li>• Comments received from Directorate of Standardization – Department of Defence (CQAPP) regarding problems being faced by them in certification due to removal of Qualification Approval (QA) and Product Identification (PI).</li> <li>• The Committee created Panel 3 under the Convenorship of Dr. Pankaj Bhatnagar, under PCD 25:SC 1 for formulating “Certification Procedure for Engine Oils, Gear Oil, and Axle Oil”.</li> <li>• Dr. Bhatnagar suggested that CQAPP’s concerns may be addressed by issuing an amendment to IS 13656, including QA and PI requirements and clearly mentioning that these are applicable for defence purposes only.</li> <li>• During further discussions, it was decided to verify the latest approval procedure being followed currently by CQAPP including the QA and PI requirements and accordingly amendments are to be framed. CQAPP also agreed with this proposal.</li> <li>• Additionally, the Committee pointed out that for the current requirements of the standard, testing facilities are not available in India and it will be difficult for complete certification process to be evolved in India.</li> <li>• In last meeting, Dr. Bhatnagar informed the Subcommittee that he has prepared revised draft incorporating latest QA and PI procedure and further deliberations are required in the panel with respect to formulation of certification procedure.</li> <li>• The Subcommittee REQUESTED him to conduct meetings of the panel and circulate the draft prepared by him in the panel for discussion and to draft the certification procedure urgently.</li> <li>• Chairperson PCD 03 also advised that, for drafting certification procedure, the panel may look into API certification process, and also include BIS certification department in their panel</li> </ul>	<ul style="list-style-type: none"> <li>• Dr. Pankaj Bhatnagar informed SC 1 that revised draft has been prepared and shared with panel for review.</li> <li>• Panel is expected to meet between 20 – 23 November to provide final recommendations and revised draft to SC 1 for decision on WC draft circulation.</li> <li>• The Subcommittee <i>AGREED</i> with the plan of Dr. Pankaj Bhatnagar.</li> <li>• The Subcommittee <i>RECOMMENDED</i> to co-opt Dr. O P Singh (DGQA Kanpur) into the panel and <i>REQUESTED</i> Dr. Pankaj Bhatnagar to share the revised draft with him as well.</li> </ul> <p><b>COMMITTEE DECISION: The Committee <i>ENDORSED</i> the recommendation of SC 1.</b></p>



		discussions to enable BIS to provide certification to interested organisations.	
iii.	<p><b>Revision of IS 1118 : 2019</b></p> <p><b>Gear lubricants multipurpose - Extreme Pressure Gear Oil - specification</b></p>	<ul style="list-style-type: none"> <li>Comments received from Directorate of Standardization – Department of Defence (CQAPP) regarding problems being faced by them in certification due to removal of Qualification Approval (QA) and Product Identification (PI).</li> <li>Further, editorial and typographical errors pointed out in the standard.</li> <li>Revised draft for IS 1118 provided by Dr. Pankaj Bhatnagar after correcting the editorial and typographical errors.</li> <li>However, the Committee requested Panel 3 to verify the latest approval procedure being followed by CQAPP and to include the QA and PI requirements in the revised draft.</li> <li>The Committee also requested the Panel to look into developing a certification procedure based on LRI (SAE) approved products for certification of gear oil for the testing facilities that are not available in India</li> <li>In the last meeting, Dr. Bhatnagar provided the revised draft for IS 1118 incorporating QA and PI requirements</li> <li>The Committee <b>RECOMMENDED</b> the panel to discuss whether SAE J2360 can be used for new category and revise the standard by including new grade equivalent to SAE J2360.</li> </ul>	<ul style="list-style-type: none"> <li>Dr. Pankaj Bhatnagar informed SC 1 that revised draft has been prepared and shared with panel for review</li> <li>Panel is expected to meet between 20 – 23 November to provide final recommendations and revised draft to SC 1 for decision on WC draft circulation.</li> <li>The Subcommittee <b>AGREED</b> with the plan of Dr. Pankaj Bhatnagar.</li> <li>The Subcommittee <b>RECOMMENDED</b> to co-opt Dr. O P Singh (DGQA Kanpur) into the panel and <b>REQUESTED</b> Dr. Pankaj Bhatnagar to share the revised draft with him as well.</li> </ul> <p><b>COMMITTEE DECISION: The Committee <b>ENDORSED</b> the recommendation of SC 1.</b></p>
iv.	<p><b>Transmission and e-Axle fluids for Electric Vehicles</b></p>	<ul style="list-style-type: none"> <li>Panel 2 created under the Convenorship of Shri Anand Kumar, Afton Chemicals Pvt Ltd for development of standard on this subject.</li> <li>The Committee <b>RECOMMENDED</b> BIS to follow up with Convenor, Shri Anand Kumar, for more frequent meetings and to include Tata Motors and Ashok Leyland in the panel</li> <li>The Committee <b>DECIDED</b> to transfer the panel to PCD 25:SC 1 and <b>REQUESTED</b> SC Convenor to ensure that panel meetings are conducted before SC and main committee meetings</li> </ul>	<ul style="list-style-type: none"> <li>The Subcommittee co-opted Shri P Ramesh from Ashok Leyland in the panel</li> <li>The Committee <b>DIRECTED</b> BIS to seek nomination of expert from M&amp;M</li> <li>The Western India Genuine Ghee Company Private Limited showed interest for co-option in the panel. The Subcommittee <b>RECOMMENDED</b> to take up the request in PCD 25 meeting.</li> </ul> <p><b>COMMITTEE DECISION: The Committee expressed concern over lack of meetings of the</b></p>



			<p>panel and <b>RECOMMENDED</b> BIS to follow up with the panel for meeting and submission of recommendations by 15 December 2023.</p> <p>With respect to co-option of representative from The Western India Genuine Ghee Company Private Limited in the panel, the Committee <b>REQUESTED</b> Western India Genuine Ghee Co. to send official request along with CV of nominated representative through BIS to Convenor of panel and the Convenor may take a decision.</p>
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**ITEM 5 VOTE OF THANKS**

The meeting ended with a vote of thanks from BIS to the Convenor and all members.





**ANNEX I**

**Meeting Attendance  
(Clause 0.3)**

**Subcommittee Members:**

1. Shri Mukul Maheshwari, IOCL (R&D), Faridabad (Convenor)
2. Shri A K Kanaujia, DGQA, Kanpur
3. Dr. T Singh, BPCL, Mumbai
4. Shri M Rajendran, BPCL, Mumbai
5. Shri Amitava Pal, BPCL, Mumbai
6. Shri Avinash Kamuni, Lubrizol India Ltd., Mumbai
7. Shri Sreehari Kumar, Lubrizol India Ltd., Mumbai
8. Dr. Devendra Singh, CSIR-IIP, Dehradun
9. Shri Dhanesh Rathod, The Western India Genuine Ghee Company Private Limited, Mumbai
10. Dr. Sitaram Dixit, Consumer Guidance Society of India, Mumbai
11. Shri Fredrick A., Bosch Ltd., Bengaluru
12. Shri Abhijit A Sarkar, HPCL, Mumbai
13. Shri Shakti Mishra, HPCL, Mumbai
14. Shri Harsh Vardhan Jain, Vinni Chemicals Pvt Ltd, New Delhi
15. Shri P Ramesh, Tata Motors, Chennai
16. Dr. Pankaj Bhatnagar, IOCL R&D, Faridabad
17. Dr. Sarita Seth, IOCL R&D, Faridabad
18. Shri Siddhesh Savant, Ultra Plus Lubes Pvt Ltd., Mumbai
19. Shri N C Sekaran, Ultra Plus Lubes Pvt Ltd., Mumbai
20. Shri Yogesh Mahajan, Bajaj Auto, Pune
21. Shri Ramesh Goykar, Bajaj Auto, Pune
22. Shri Kamal Prakash Singh, RDSO, Lucknow

**BIS Secretariat**

1. Ms. Kreeti Das, Sc. C, PCD



**Annexure B**

	<b>भारतीय मानक ब्यूरो BUREAU OF INDIAN STANDARDS</b>
	<b>(PETROLEUM, COAL &amp; RELATED PRODUCTS DEPARTMENT)</b>
<b>DRAFT MINUTES</b>	
<b>26 October 2023, Thursday, 1030 -- 1330 h</b>	
<b>Industrial Lubricants &amp; Specialty Products Subcommittee</b>	<b>8<sup>th</sup> Meeting</b>
<b>Convenor: Shri Siva Kasturi, Shell India Markets Pvt Ltd</b>	<b>Member Secretary: Ms. Kreeti Das</b>

**ITEM 0 OPENING OF THE MEETING**

**0.1 Welcome address**

On behalf of BIS, Ms. Kreeti Das, Sc. C, welcomed all members to the 8<sup>th</sup> meeting of PCD 25:SC 2.

**0.2 Opening remarks by the Convenor**

Shri Siva Kasturi extended a warm welcome to all members and invited members to contribute actively in the discussions of the meeting. He expressed concern over participation in the meetings and also documents pending with experts. He requested members who have been given tasks of revising standards and/or providing drafts for new standards to complete the work timely. He also encouraged Subcommittee members to contact organizations with less participation and inform BIS if members are retired/left organization. He asked BIS to contact members individually for participation for better approach along with sending letters to Heads of their organizations.

**0.3** The attendance of the meeting is given in **Annex I**.

**ITEM 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING**

The Subcommittee **REVIEWED** the comments of Dr. Kavita Rai and **ACCEPTED** them. The Subcommittee **CONFIRMED** the rest of the minutes, as circulated.

**ITEM 2 TITLE, SCOPE AND COMPOSITION OF PCD 25:SC 2**

**2.1** The Subcommittee **NOTED** the title and scope of the PCD 25:SC 2.

**2.2** The Subcommittee **REVIEWED** the list of standards proposed under PCD 25:SC 2 (Annex I of agenda) and **RECOMMENDED** to retain IS 1628 : 1986 in PCD 25:SC 2. The final approved list of standards under PCD 25:SC 2 is given below:

**List of Indian Standards under the Scope of PCD 25:2**

Sl. No.	Indian Standard	Title
1.	IS 493 (Part 1) : 2019	Specification for general purpose machinery and spindle oils: Part 1 machinery oils (Second Revision)
2.	IS 493 (Part 2) : 2019	Specification for general purpose machinery and spindle oils: Part 2 spindle oils (Second Revision)
3.	IS 1012 : 2002	Turbine lubricating oils – Specification (Third Revision)
4.	IS 1083 : 2022	Industrial White Oil – Specification (Second Revision)
5.	IS 1115 : 1986	Specification for general purpose cutting oil, soluble (Second Revision)
6.	IS 1153 : 2021	Temporary Corrosion Preventives Hard Film Solvent Deposited
7.	IS 1154 : 2022	Temporary Corrosion Preventive Fluid, Soft Film, Solvent Deposited, Water Displacing – Specification (second revision)
8.	IS 1589 : 1994	Oil, cylinder – Specification (First Revision)
9.	IS 1628 : 1986	Specification for axle oil (Second Revision)
10.	IS 1758 : 1986	Specification for jute batching oil (Second Revision)
11.	IS 2297 : 1997	Gear lubricants, compounded – Specification (Third Revision)
12.	IS 2664 : 1980	Specification for quenching oil (Second Revision)
13.	IS 3065 : 2021	Cutting oil neat
14.	IS 3098 : 1983	Specification for oil, hydraulic, mineral oil type (Second Revision)
15.	IS 4543 : 1977	Specification marquenching oil (First Revision)
16.	IS 4578 : 1997	Lubricants – Lubricating oil for refrigeration machinery – Specification (Second Revision)
17.	IS 5730 : 1970	Specification for volatile corrosion inhibitor powder
18.	IS 6049 : 1971	Code of practice for application of temporary corrosion preventives
19.	IS 6050 : 1971	Specification for temporary corrosion preventives, strippable, hot dipping type
20.	IS 6263 : 2018	Volatile corrosion inhibitor (Vci) treated paper – Specification (First Revision)
21.	IS 6552 : 1987	Specification for straight mineral high demulsibility oils (First Revision)
22.	IS 8406 : 1993	Gear lubricants for enclosed industrial gear drives – Specification (Second Revision)
23.	IS 9182 (Part 1) : 1993	Lubricants for wire ropes and fibre cores – Specification: Part 1 lubricants for fibre core of wire – Ropes (First Revision)



24.	IS 9182 (Part 2) : 1993	Lubricants for wire ropes and – Fibre cores – Specification part – 2 lubricants for wire strands and ropes . (First Revision)
25.	IS 9182 (Part 3) : 1993	Lubricants for wire ropes and fibre cores – Specification: Part 3 lubricants for rope dressing in service (First Revision)
26.	IS 9466 : 2020	Viscosity Classification For Industrial Liquid Lubricants (First Revision)
27.	IS 9554 : 1980	Specifications for lubricants for open gears
28.	IS 9611 : 1980	Specifications for cutting oil soluble, clear
29.	IS 10522 : 1983	Specification for antiwear hydraulic oil
30.	IS 10531 : 1983	Code of practice for selection and use of fire – Resistant hydraulic fluids
31.	IS 10532 (Part 1) : 1983	Specification for fire – Resistant hydraulic fluids: Part I dilute emulsions for powered supports
32.	IS 10532 (Part 2) : 1983	Specification for fire-- Resistant hydraulic fluids-- Part 2 : invert emulsions (Water-- In-- Oil) type
33.	IS 10532 (Part 3) : 1983	Specification for fire-- Resistant hydraulic fluids-- Part 3 : water glycol type
34.	IS 10532 (Part 4) : 2019	Fire resistant hydraulic fluids-- Specification: Part 4 phosphate esters type (First Revision)
35.	IS 10532 (Part 5) : 2016	Fire resistant hydraulic fluids-- Specification: Part 5 organic ester type
36.	IS 11159 (Part 1) : 2020	General Classification of Lubricants, Industrial Oils and Related Products Part 1 Class L ( First Revision )
37.	IS 11159 (Part 2) : 2021	Classification of lubricants industrial oils and related products Part 2 Family A Total loss systems
38.	IS 11159 (Part 3) : 2021	General classification of lubricants industrial oils and related products Part 3 Family F Spindle bearings bearings and associated clutches
39.	IS 11159 (Part 4) : 2011/ ISO 6743-3 : 2003	Lubricants, industrial oils and related products (Class L)-- Classification: Part 4 family d (Compressors)
40.	IS 11159 (Part 5) : 2019/ ISO 6743-4 : 1999	Lubricants, industrial oils and related products (Class L)-- Classification: Part 5 family h (Hydraulic Systems) (First Revision)
41.	IS 11159 (Part 6) : 2011/ ISO 6743-5 : 2006	Lubricants, industrial oils and related products (Class L)-- Classification: Part 6 family t (Turbines)
42.	IS 11159 (Part 7) : 2019/ ISO 6743-6 : 1990	Lubricants, industrial oils and related products (Class L)-- Classification: Part 7 family c (Gear Systems) (First Revision)
43.	IS 11159 (Part 13) : 2019/ ISO 6743-12	Lubricants, industrial oils and related products (Class L)-- Classification: Part 13 family q (Heat Transfer Fluids)
44.	IS 11186 : 1985	Specification for synthetic grinding fluid
45.	IS 11656 : 1986	Specification for antiwear hydraulic oil, extra heavy duty type
46.	IS 11695 : 2020	Inhibited Type Machinery Oils Specification ( First Revision )
47.	IS 11696 : 2020	Inhibited Type Spindle Oils Specification ( First Revision )
48.	IS 12927 : 2004	Glass mould oils-- Specification (First Revision)
49.	IS 13256 : 1992	Air compressor lubricants-- Types daa and dab – Specification
50.	IS 13796 : 2004	Molybdenum disulphide powder for lubricants-- Specification (First Revision)



51.	IS 13797 : 2021	Molybdenum Disulphide Dispersion in Oil-- Specification (first revision)
52.	IS 13913 : 2020	Molybdenum Disulphide, Paste Specification ( First Revision )
53.	IS 14384 : 1996	Colloidal graphite dispersion in oil-- Specification
54.	IS 14385 : 1996	Aluminium cold rolling oils-- Specification
55.	IS 14745 : 1999	Thermic fluids – Specification
56.	IS 14779 : 2000	General purpose oil based temporary corrosion preventives-- Specification
57.	IS 15112 (Part 1) : 2002/ ISO 12925-1	General classification of lubricants, industrial oils and related products: Part 1 class L
58.	IS 16775 : 2018/ ISO/TS 11365:2011	Petroleum and related products-- Guidance for the maintenance and use of triaryl phosphate ester turbine-- Control fluids
59.	IS 16852 : 2018	Petroleum and related products-- Guidance for in-- Servicing of lubricating oils for steam, gas and combined-- Cycle turbines
60.	IS 16909 : 2018	Girth gear lubricants-- Specification
61.	IS 17382 : 2021	Syn Gas Ammonia Turbo Compressor Lubricating Oils Specification

**COMMITTEE DECISION:** The Committee **ENDORSED** the recommendation of SC 2 to retain IS 1628 in SC 2 and **NOTED** the list of standards under SC 2.

**2.3** The Subcommittee **NOTED** item 2.4 of the agenda regarding the panels under SC 2.

### ITEM 3 R&D PROJECTS TO SUPPORT STANDARDIZATION

The Subcommittee **NOTED** item 3 of the agenda regarding R&D project provision introduced by BIS.

### ITEM 4 ACTIVITIES OF INDUSTRIAL LUBRICANTS & SPECIALTIES SUBCOMMITTEE

#### 4.1 Draft Standards/Amendments for Finalization

Sl. No.	Document No.	Decision in Previous Meetings	Subcommittee Recommendation
i.	<b>PCD 25 (18597)</b> <b>Second Revision of IS 6552 : 1987</b> <b>Straight mineral high demulsibility oils - Specification</b>	<ul style="list-style-type: none"> <li>The Subcommittee <b>RECOMMENDED</b> to finalize the document for printing with approval of PCD 25</li> <li>The Committee <b>DECIDED</b> to finalize the document for printing</li> </ul>	<ul style="list-style-type: none"> <li>The Subcommittee <b>NOTED</b> that the document has been sent for printing.</li> </ul>




ii.	<p><b>PCD 25 (18660)</b></p> <p><b>Third Revision of IS 2664 : 1980</b></p> <p><b>Quenching oil - Specification</b></p>	<ul style="list-style-type: none"> <li>The Subcommittee <i>RECOMMENDED</i> to finalize the document for printing with approval of PCD 25</li> <li>The Committee <i>DECIDED</i> to finalize the document for printing</li> </ul>	<ul style="list-style-type: none"> <li>The Subcommittee <i>NOTED</i> that the document has been sent for printing.</li> </ul>
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**4.2 Draft Standards/Amendments for Approval for Wide Circulation**

Sl. No.	Indian Standard/Document No.	Decision in Previous Meetings	Subcommittee Recommendation
i.	<p><b>IS 8406 : 1993</b></p> <p><b>Gear lubricants for enclosed industrial gear drives - Specification</b></p>	<ul style="list-style-type: none"> <li>Subcommittee <i>RECOMMENDED</i> BIS Sectt to send IS 15112 (Part 1) "Lubricants, industrial oils and related products (Class L) – Family C (Gears) Part 1 Specification for lubricants for enclosed gear systems" and IS 8406 to Dr. Kavita Rai and Shri Abhijit Sarkar to check whether these standards are overlapping</li> <li>If found overlapping, Subcommittee <i>RECOMMENDED</i> to explore the possibility of merging both standard.</li> <li>However, as IS 8406 is used by customs department, comments to be sought from them before merging the standards</li> <li>If not found overlapping, revised draft provided by Dr. Jaiswal to be circulated into WC</li> <li>The Committee <i>AGREED</i> with the recommendation of Subcommittee and <i>REQUESTED</i> Dr. Kavita Rai and Shri Abhijit Sarkar to review and provide their inputs within 1 month.</li> </ul>	<ul style="list-style-type: none"> <li>The Subcommittee <i>NOTED</i> that comments from Customs Department not sought by BIS and <i>DIRECTED</i> BIS to seek comments from Customs Department urgently.</li> <li>The Subcommittee also <i>DIRECTED</i> BIS to seek comments from railways (RDSO) on the standard</li> <li>Subcommittee members informed that IS 8406 is based on AGMA (American Gear Manufacturer Association) specification for engineering and railway applications whereas IS 15112 (Part 1) is an ISO adoption which covers a very wide range of application</li> <li>The Subcommittee <i>RECOMMENDED</i> BIS to prepare a comparative chart between IS 8406 and IS 15112 (Part 1) to assist Dr. Rai and Shri Abhijit Sarkar</li> </ul> <p><b>COMMITTEE DECISION: The Committee discussed the changes required in IS 8406 and <i>REQUESTED</i> Dr. Kavita Rai and Shri Abhijit Sarkar to prepare a revised draft based on latest AGMA specification, in consultation with Shri Ajay Harinarain, by end of November 2023.</b></p> <p><b>The Committee also <i>NOTED</i> that ISO 12925 (Part 1) : 1996 has been adopted as IS 15112 (Part 1) : 2002. However, revised ISO 12925 (Part 1) : 2018 is published and Committee</b></p>



			<b>DIRECTED</b> BIS to circulate the latest ISO standard into WC for 2 months for revision of IS 15112 (Part 1).
ii.	<p><b>PCD 25(23352)</b></p> <p><b>Adoption of ISO 6521-1 to replace IS 13256 : 1992</b></p> <p><b>Air compressor lubricants - Types daa and dab - Specification</b></p>	<ul style="list-style-type: none"> <li>The Subcommittee <i>CONFIRMED</i> that ISO 6521-1 will replace IS 13256 and <i>RECOMMENDED</i> BIS to issue the ISO standard into WC at the earliest</li> <li>For food grade, convenor of concerned panel (PCD 25/P1), Dr. Kavita Rai, informed that ISO 6521-1 can be modified to include food grade requirements.</li> <li>The Committee <i>REQUESTED</i> the panel (PCD 25/P1) to provide the modification to be included in ISO 6521-1 and <i>DECIDED</i> that BIS will issue ISO 6521-1 into WC for adoption with technical modification</li> </ul>	<ul style="list-style-type: none"> <li>WC for adoption of IS 6521-1 to replace IS 13256, issued into WC for 2 months with document no. PCD 25(23352)WC on 25-08-2023</li> <li>Comments were received on the WC document and the Subcommittee deliberated the comments and gave recommendations, as given below:</li> </ul> <div style="text-align: center;">  <p>Comments%20on%20Adoption%20of%</p> </div> <p><b>COMMITTEE DECISION:</b> The Committee <i>ENDORSED</i> the recommendations of SC 2 and <i>DECIDED</i> to finalize the standard for printing as the proposed changes are minor.</p>

**4.3 Drafts Under Preparation**

Sl. No.	Indian Standard/New Subject	Decision in Previous Meetings	Subcommittee Recommendation
i.	<p><b>IS 1628 : 1986</b></p> <p><b>Specification for axle oil</b></p>	<ul style="list-style-type: none"> <li>For revision of the standard, Subcommittee <i>RECOMMENDED</i> BIS to write to RDSO for comments on the standard</li> <li>The Committee <i>AGREED</i> with the recommendation of Subcommittee and <i>REQUESTED</i> Dr. Kavita Rai to prepare the revised document</li> </ul>	<ul style="list-style-type: none"> <li>BIS informed that Shri Kamal Prakash Singh from RDSO had informed that they have certain comments on the standard and will submit them by email.</li> <li>The Subcommittee again reiterated that RDSO comments are important for revision of this standard</li> </ul> <p><b>COMMITTEE DECISION:</b> The Committee <i>ENDORSED</i> the recommendations of SC 2 and <i>REQUESTED</i> Dr. Kavita Rai to prepare the revised document. The Committee <i>DIRECTED</i> BIS to</p>



			forward any comments received from RDSO to Dr. Kavita Rai.
ii.	<p><b>IS 3098 : 1983</b> Specification for oil, hydraulic, mineral oil type</p> <p>&amp;</p> <p><b>IS 10522 : 1983</b> Specification for antiwear hydraulic oil</p> <p>&amp;</p> <p><b>IS 11656 : 1986</b> Specification for antiwear hydraulic oil extra heavy duty type</p> <p>&amp;</p> <p><b>PCD 25 (14904)</b> All weather antiwear hydraulic oils - Specification</p>	<ul style="list-style-type: none"> <li>Subcommittee <i>RECOMMENDED</i> BIS to seek updated nominations from Gulf Oil lubricants as Shri Sanjay Kumar may not be continuing there</li> <li>Subcommittee <i>RECOMMENDED</i> to check if Shri Umesh Dwivedi can represent Gulf Oil in SC 2</li> <li>Subcommittee <i>REQUESTED</i> Shri Umesh Dwivedi to use the draft prepared by Shri Sanjay Kumar after combining IS 10522 and IS 11656 and prepare the final draft by merging PCD 25 (14904)</li> <li>Final draft prepared by Shri Umesh Dwivedi will be circulated into WC for a period of 60 days.</li> <li>Shri Umesh Dwivedi informed that he will provide the final draft by end of July 2023</li> <li>The Committee <i>AGREED</i> with the recommendation of Subcommittee</li> </ul>	<ul style="list-style-type: none"> <li>Shri Umesh Dwivedi confirmed that Gulf Oil will provide updated nominations shortly.</li> </ul> <p><b>COMMITTEE DECISION:</b> The Committee <i>REQUESTED</i> Shri Umesh Dwivedi to prepare the revised document. The Committee <i>RECOMMENDED</i> to use DIN (HL, HLP, HVLP) and ISO specification and prepare merged draft combining IS 10522, IS 11656, IS 3098 and PCD 25(14904).</p> <p>The Committee <i>DIRECTED</i> BIS to provide the word file of IS 10522 to Shri Umesh Dwivedi and <i>REQUESTED</i> Shri Dwivedi to provide the revised draft by end of November 2023. The revised draft to be circulated into WC for 2 months.</p>
iii.	<p><b>IS 10531 : 1983</b></p> <p><b>Code of practice for selection and use of fire - Resistant hydraulic fluids</b></p>	<ul style="list-style-type: none"> <li>The Subcommittee <i>RECOMMENDED</i> BIS Sectt to send ISO/DIS 7745 to Dr. T Singh for checking and Dr. Kavita Rai and Convenor will assist him. If found technically satisfactory, the FDIS draft to be circulated into WC for 30 days.</li> <li>The Subcommittee <i>RECOMMENDED</i> to issue ISO 12922 into WC at the earliest</li> <li>The Subcommittee <i>REQUESTED</i> Shri Umesh Dwivedi (Gulf Oil), Shri Siva Kasturi (Shell) and Shri Rajiv Bhatnagar (Sarbi Industries) to provide the revised draft by July 2023</li> <li><b>COMMITTEE DECISION:</b> The Committee <i>AGREED</i> with the recommendation of Subcommittee</li> </ul>	<ul style="list-style-type: none"> <li>The Subcommittee <i>NOTED</i> that ISO 12922 : 2020 "Lubricants, industrial oils and related products (class L) — Family H (hydraulic systems) — Specifications for hydraulic fluids in categories HFAE, HFAS, HFB, HFC, HFDR and HFDU" has been issued into WC as PCD 25 (23946)WC on 23 October 2023 for 2 months and <i>REQUESTED</i> all members to review and comment on the document.</li> <li>The Subcommittee <i>NOTED</i> that ISO 7745 is already adopted as IS 15178 by PGD department of BIS and currently PCD is in the process of transferring the standard. Once IS 15178 is transferred to PCD, the latest ISO 7745 will be issued into WC for revision</li> </ul>





			of IS 15178 and replacement of IS 10531.  <b>COMMITTEE DECISION: The Committee <i>ENDORSED</i> the recommendations of SC 2</b>	
iv.	<b>IS 10532 (Part 1) : 1983</b>  <b>Specification for fire - Resistant hydraulic fluids: Part 1 dilute emulsions for powered supports</b>		<ul style="list-style-type: none"> <li>The Subcommittee <b>NOTED</b> that ISO 12922 : 2020 “Lubricants, industrial oils and related products (class L) — Family H (hydraulic systems) — Specifications for hydraulic fluids in categories HF AE, HFAS, HFB, HFC, HFDR and HF DU” has been issued into WC as PCD 25 (23946)WC on 23 October 2023 for 2 months and <b>REQUESTED</b> all members to review and comment on the document.</li> <li>The Subcommittee also <b>DIRECTED</b> BIS to circulate copy of ISO 12922 to all members of PCD 25 and PCD 25:2</li> <li>The Subcommittee reiterated the importance of seeking comments from CSIR-IIP on test methods prescribed in ISO 12922</li> </ul> <p><b>COMMITTEE DECISION: The Committee <i>ENDORSED</i> the recommendations of SC 2 and <i>DIRECTED</i> BIS to communicate the WC draft to DGMS, IIP, steel industries, NTH, HPCL, and IOCL, and seek comments, especially regarding the test facility for fire resistance and ignition.</b></p> <p>The Committee <b>REQUESTED</b> Dr. Kavita Rai to prepare the letter to be used for communication to the selected organizations and provide to BIS.</p>	
v.	<b>IS 10532 (Part 2) : 1983</b>  <b>Specification for fire - Resistant hydraulic fluids - Part 2 : invert emulsions (Water - In - Oil) type</b>	<ul style="list-style-type: none"> <li>The Subcommittee <b>CONFIRMED</b> that ISO 12922 can replace IS 10532 (Parts 1 – 5) and <b>RECOMMENDED</b> to issue ISO 12922 into WC for 2 months at the earliest</li> <li>The Subcommittee also <b>RECOMMENDED</b> to especially seek comments from DGMS on the WC as they may be using IS 10532 series of standards</li> <li>The Committee <b>AGREED</b> with the recommendation of Subcommittee but also <b>RECOMMENDED</b> BIS to seek comments from IIP, NTH, HPCL, and IOCL regarding availability of test methods prescribed in the ISO standard in India</li> </ul>		
vi.	<b>IS 10532 (Part 3) : 1983</b>  <b>Specificaiton for fire - Resistant hydraulic fluids - Part 3 : water glycol type</b>			
vii.	<b>IS 10532 (Part 4) : 2019</b>  <b>Fire resistant hydraulic fluids - Specification: Part 4 phosphate esters type</b>			
viii.	<b>IS 10532 (Part 5) : 2016</b>  <b>Fire resistant hydraulic fluids - Specification: Part 5 organic ester type</b>			
ix.	<b>IS 1115 : 1986</b>  <b>Specification for general purpose cutting oil, soluble</b>	<ul style="list-style-type: none"> <li>The Subcommittee <b>RECOMMENDED</b> to follow up with Dr. Venkatesan with copy to Shri Rajesh Nambiar</li> <li>The Committee <b>AGREED</b> with the recommendation of Subcommittee</li> </ul>		<ul style="list-style-type: none"> <li>The Subcommittee <b>REQUESTED</b> main Committee to discuss as draft has been awaited from IOCL (Mktg) for a long time</li> </ul>



			<p><b>COMMITTEE DECISION:</b> The Committee <b>REQUESTED</b> Shri Mukul Maheshwari, IOCL (R&amp;D) to nominate a suitable expert who can provide revised draft and inform BIS. The nominated expert would be required to provide revised draft by end of December 2023.</p>
x.	<p><b>IS 14385 : 1996</b></p> <p><b>Aluminium cold rolling oils - Specification</b></p>	<ul style="list-style-type: none"> <li>The Subcommittee <b>RECOMMENDED</b> BIS Sectt to follow up with Shri Venkatesh Krishnan and Shri Harshad Pandit, Hindalco, for the revised draft, with copy to Dr. T Singh</li> <li>Revised draft to be circulated into WC for a period of 2 months.</li> <li>The Committee <b>AGREED</b> with the recommendation of Subcommittee</li> </ul>	<ul style="list-style-type: none"> <li>The Subcommittee <b>REQUESTED</b> main Committee to discuss the long pendency</li> </ul> <p><b>COMMITTEE DECISION:</b> Dr. T Singh, BPCL, informed that he has discussed with Shri Venkatesh Krishnan and draft can be expected by mid-November 2023. The Committee once again <b>REQUESTED</b> Shri Venkatesh Krishnan and Shri Harshad Pandit to provide the revised draft by mid-November 2023.</p>
xi.	<p><b>IS 1589 : 1994</b></p> <p><b>Oil, cylinder - Specification</b></p>	<ul style="list-style-type: none"> <li>For revision of the standard, Subcommittee <b>RECOMMENDED</b> BIS to write to RDSO for comments on the standard</li> <li>The Committee <b>AGREED</b> with the recommendation of Subcommittee and <b>REQUESTED</b> Dr. Kavita Rai to prepare the revised document</li> </ul>	<ul style="list-style-type: none"> <li>BIS informed that Shri Kamal Prakash Singh, RDSO, has been requested to provide comments on the standard and the Subcommittee <b>NOTED</b>.</li> </ul> <p><b>COMMITTEE DECISION:</b> The Committee <b>REQUESTED</b> Dr. Kavita Rai to prepare the revised document. The Committee <b>DIRECTED</b> BIS to forward any comments received from RDSO to Dr. Kavita Rai.</p>
xii.	<p><b>IS 1758 : 1986</b></p> <p><b>Specification for jute batching oil</b></p>	<ul style="list-style-type: none"> <li>The Subcommittee <b>RECOMMENDED</b> BIS to follow up with Dr. Pankaj Bhatnagar to provide the revised draft</li> <li>Revised draft to be circulated into WC for 2 months.</li> <li>The Committee <b>AGREED</b> with the recommendation of Subcommittee and Dr. Pankaj Bhatnagar agreed to provide the revised draft within 10 days</li> </ul>	<ul style="list-style-type: none"> <li>The Subcommittee thanked Dr. Pankaj Bhatnagar for the revised draft and <b>DIRECTED</b> BIS to issue the revised draft into WC circulation for 2 months.</li> </ul> <p><b>COMMITTEE DECISION:</b> The Committee <b>ENDORSED</b> the recommendations of SC 2</p>
xiii.	<p><b>IS 2297 : 1997</b></p>	<ul style="list-style-type: none"> <li>The Subcommittee <b>RECOMMENDED</b> to send IS 15112 (Part 1) and IS 2297 to Dr. Kavita Rai, Shri Abhijit Sarkar, Dr. O P Singh, and to CQAPP Kanpur to check whether these standards are</li> </ul>	<ul style="list-style-type: none"> <li>BIS informed that revised draft has been received from Shri Abhijit Sarkar and the Subcommittee thanked him</li> <li>The Subcommittee <b>DIRECTED</b> BIS to issue the revised draft</li> </ul>



	<b>Gear lubricants, compounded - Specification</b>	<p>overlapping, and if so, whether IS 15112 (Part 1) can replace IS 2297.</p> <ul style="list-style-type: none"> <li>The Committee was of the view that IS 15112-1 does not cover compounded gear oils. AGMA has specification for compounded gear oils.</li> <li>Committee <i>REQUESTED</i> Shri Abhijit Sarkar to prepare the revised draft and <i>RECOMMENDED</i> to check the latest AGMA specification and ISO 12925-1,2,3</li> </ul>	<p>into WC draft circulation for 2 months.</p> <ul style="list-style-type: none"> <li>The Subcommittee also <b><i>DIRECTED</i></b> BIS to seek comments especially from DGQA on this document.</li> </ul> <p><b>COMMITTEE DECISION: The Committee <i>ENDORSED</i> the recommendations of SC 2</b></p>
xiv.	<b>IS 4543 : 1977</b> <b>Specification marquenching oil</b>	<ul style="list-style-type: none"> <li>Subcommittee <i>RECOMMENDED</i> BIS to seek updated nominations from Gulf Oil lubricants as Shri Sanjay Kumar may not be continuing there</li> <li>Subcommittee <i>RECOMMENDED</i> to check if Shri Umesh Dwivedi can represent Gulf Oil in SC 2</li> <li>Subcommittee <i>REQUESTED</i> Shri Umesh Dwivedi to provide the modified draft and also to check the feasibility of referring ISO 9950 as the test method</li> <li>The Committee <i>AGREED</i> with the recommendation of Subcommittee</li> </ul>	<ul style="list-style-type: none"> <li>The Subcommittee <b><i>REQUESTED</i></b> main Committee to discuss the long pendency</li> </ul> <p><b>COMMITTEE DECISION: Shri Umesh Dwivedi informed that he does not have expertise in marquenching oil. After deliberation in the Committee, the Committee <i>REQUESTED</i> Shri Abhijit Sarkar and Shri Shakti Mishra, HPCL to provide revised draft by end of November 2023.</b></p>
xv.	<b>IS 5730 : 1970</b> <b>Specification for volatile corrosion inhibitor powder</b>	<ul style="list-style-type: none"> <li>The Subcommittee <i>RECOMMENDED</i> BIS to follow up with Shri Rajiv Bhatnagar to provide the revised draft with copy to Dr. T Singh and Convenor</li> <li>Convenor also stated that he will provide contact details of companies manufacturing VCI powder and Subcommittee <i>REQUESTED</i> BIS to send formal letters to them seeking comments on the standard</li> <li>If revised draft and/or comments from VCI manufacturers are not received, Subcommittee will consider archiving of the standard in next meeting</li> <li>The Committee <i>AGREED</i> with the recommendation of Subcommittee</li> </ul>	<ul style="list-style-type: none"> <li>Convenor stated that he will provide contact details of companies manufacturing VCI powder so that BIS can write to them for comments</li> <li>The Subcommittee <b><i>REQUESTED</i></b> main Committee to discuss the long pendency</li> </ul> <p><b>COMMITTEE DECISION: The Committee <i>REQUESTED</i> Shri Mukul Maheshwari and Dr. Pankaj Bhatnagar to prepare the revised document and provide to BIS by end of December 2023. If any comments are received from companies manufacturing VCI powder, they may be forwarded to Shri Maheshwari and Dr. Bhatnagar.</b></p>
xvi.	<b>IS 6049 : 1971</b> <b>Code of practice for application of temporary</b>	<ul style="list-style-type: none"> <li>The Subcommittee <i>RECOMMENDED</i> BIS to follow up with Shri Rajiv Bhatnagar to provide the revised draft with copy to Dr. T Singh and Convenor</li> <li>Convenor also stated that he will provide contact details of relevant</li> </ul>	<ul style="list-style-type: none"> <li>Convenor stated that he will provide contact details of companies manufacturing temporary corrosion preventives so that BIS can write to them for comments</li> </ul>



	<b>corrosion preventives</b>	companies and Subcommittee <i>REQUESTED</i> BIS to send formal letters to them seeking comments on the standards	<ul style="list-style-type: none"> <li>The Subcommittee <b><i>DIRECTED</i></b> BIS to check whether any ISO standards have been published on code of practice for application of temporary corrosion preventives</li> <li>The Subcommittee also <b><i>REQUESTED</i></b> main Committee to discuss the long pendency</li> </ul> <p><b>COMMITTEE DECISION:</b> The Committee <b><i>REQUESTED</i></b> Shri Mukul Maheshwari and Dr. Pankaj Bhatnagar to prepare the revised document and provide to BIS by end of December 2023. If any comments are received from companies manufacturing temporary corrosion preventives, they may be forwarded to Shri Maheshwari and Dr. Bhatnagar.</p>
xvii.	<b>IS 6050 : 1971</b>  <b>Specification for temporary corrosion preventives, strippable, hot dipping type</b>	<ul style="list-style-type: none"> <li>If revised drafts and/or comments from companies are not received, Subcommittee will consider archiving of both standards in next meeting</li> <li>The Committee <i>AGREED</i> with the recommendation of Subcommittee</li> <li>Dr. T Singh informed that he had conversation with Shri Rajiv Bhatnagar and he confirmed that draft will be provided within 2 weeks.</li> </ul>	
xviii.	<b>IS 9182 (Part 1) : 1993</b>  <b>Lubricants for wire ropes and fibre cores - Specification: Part 1 lubricants for fibre core of wire - Ropes</b>		
xix.	<b>IS 9182 (Part 2) : 1993</b>  <b>Lubricants for wire ropes and - Fibre cores - Specification part - 2 lubricants for wire strands and ropes</b>	<ul style="list-style-type: none"> <li>The Subcommittee <i>RECOMMENDED</i> BIS to follow up with Shri Umesh Dwivedi to provide the revised draft with copy to Dr. T Singh</li> <li>The Committee <i>AGREED</i> with the recommendation of Subcommittee</li> </ul>	
xx.	<b>IS 9182 (Part 3) : 1993</b>  <b>Lubricants for wire ropes and fibre cores -</b>		<ul style="list-style-type: none"> <li>The Subcommittee <b><i>DIRECTED</i></b> BIS to send the word files to Shri Umesh Dwivedi and <b><i>REQUESTED</i></b> him to provide the revised drafts by end of December 2023.</li> </ul> <p><b>COMMITTEE DECISION:</b> The Committee <b><i>ENDORSED</i></b> the recommendations of SC 2</p>



	<b>Specification: Part 3 lubricants for rope dressing in service</b>		
xxi.	<b>IS 9554 : 1980</b> <b>Specifications for lubricants for open gears</b>	<ul style="list-style-type: none"> <li>Subcommittee <i>RECOMMENDED</i> to send ISO 12925-2 “Lubricants, industrial oils and related products (class L) — Family C (gears) — Part 2: Specifications of categories CKH, CKJ and CKM (lubricants open and semi-enclosed gear systems)”, IS 9554, and IS 16909 to Dr. T Singh, Shri Umesh Dwivedi, and Convenor to verify whether the ISO standard can replace both Indian Standards or one of them</li> <li>If ISO 12925-2 cannot replace IS 9554, Subcommittee <i>REQUESTED</i> Shri Umesh Dwivedi to provide the revised draft.</li> <li>The Committee <i>AGREED</i> with the recommendation of Subcommittee and <i>REQUESTED</i> Shri Umesh Dwivedi to provide inputs and revised draft by July 2023</li> </ul>	<ul style="list-style-type: none"> <li>The members informed that they did not receive the standards from BIS for revision</li> <li>Hence, the Subcommittee <b><i>DIRECTED</i></b> BIS to send ISO 12925-2 “Lubricants, industrial oils and related products (class L) — Family C (gears) — Part 2: Specifications of categories CKH, CKJ and CKM (lubricants open and semi-enclosed gear systems)”, IS 9554, and IS 16909 to Dr. T Singh, Shri Umesh Dwivedi, and Convenor to verify whether the ISO standard can replace both Indian Standards or one of them</li> <li>If ISO 12925-2 cannot replace IS 9554, Subcommittee <b><i>REQUESTED</i></b> Shri Umesh Dwivedi to provide the revised draft.</li> </ul> <p><b>COMMITTEE DECISION: The Committee <i>ENDORSED</i> the recommendations of SC 2</b></p>
xxii.	<b>IS 9611 : 1980</b> <b>Specifications for cutting oil soluble, clear</b>	<ul style="list-style-type: none"> <li>The Subcommittee <i>RECOMMENDED</i> BIS to follow up with Dr. Pankaj Bhatnagar (IOCL R&amp;D) and Shri Nitish (IOCL Mktg) to provide the revised draft</li> <li>Revised draft to be circulated into WC for 2 months.</li> <li>The Committee <i>AGREED</i> with the recommendation of Subcommittee and Dr. Pankaj Bhatnagar agreed to provide the revised draft by end of August 2023</li> </ul>	<ul style="list-style-type: none"> <li>The Subcommittee thanked Dr. Pankaj Bhatnagar for the revised draft and <b><i>DIRECTED</i></b> BIS to issue the revised draft into WC circulation for 2 months.</li> </ul> <p><b>COMMITTEE DECISION: The Committee <i>ENDORSED</i> the recommendations of SC 2</b></p>
xxiii.	<b>Aviation Grade Hydraulic Fluids</b>	<ul style="list-style-type: none"> <li>The Subcommittee <i>RECOMMENDED</i> the following composition for the panel:                             <ul style="list-style-type: none"> <li>- Shri Siva Kasturi – Convenor</li> <li>- Gp Capt A Shrivastava, Dir. Of Indigenization, Dept of Defence</li> <li>- CEMILAC</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>The Subcommittee <b><i>NOTED</i></b> that BIS had sent letters to CEMILAC, DGAQA, IOCL (R&amp;D), IOCL (Mktg), and Avi Oils for nominating experts to the panel, however, no</li> </ul>



		<ul style="list-style-type: none"> <li>- DGAQA</li> <li>- IOCL (R&amp;D)</li> <li>- IOCL (Mktg)</li> <li>- Avi Oils</li> <li>- Mitesh Rathod, Swastik Oil</li> <li>- Harsh Vardhan Jain, Vinni Chemicals</li> <li>• The scope of this Panel is to identify the subjects and prepare the specifications in which Indian Air Force is interested (Background - NWIP received from Indian Air Force)</li> <li>• The Subcommittee <i>RECOMMENDED</i> BIS to seek nomination of representatives from the above organizations for the panel so that meeting can be called urgently</li> <li>• Dr. Kavita Rai suggested the panel to refer to JSS 9150-090 : 2021 Hydraulic fluid for military aircraft OM15 for preparation of working document</li> <li>• The Committee <i>AGREED</i> with the recommendation of Subcommittee and <i>RECOMMENDED</i> to add HPCL in the panel</li> </ul>	<p>nominations have been received</p> <ul style="list-style-type: none"> <li>• The Subcommittee <b><i>REQUESTED</i></b> main Committee to discuss</li> </ul> <p><b>COMMITTEE DECISION:</b> The Committee <b><i>DIRECTED</i></b> BIS to contact Dr. Shanmuga Priya from CEMILAC. Dr. Kavita Rai was willing to be nominated from IOCL (R&amp;D) and Shri Piyush Dubey was proposed to be nominated from IOCL (Mktg).</p> <p>The Committee <b><i>DIRECTED</i></b> BIS to follow up with the organizations again to constitute the panel and <b><i>REQUESTED</i></b> Shri Siva Kasturi to convene a meeting for formulation of draft.</p>
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**ITEM 5 ANY OTHER BUSINESS**

As there are a large number of documents and standards under the Subcommittee, which involve lengthy and complex discussions, the Subcommittee ***RECOMMENDED*** to convene the next meeting physically in Mumbai.

**ITEM 6 VOTE OF THANKS**

The meeting ended with a vote of thanks from BIS to the Convenor and all members.



**ANNEX I**  
**Meeting Attendance**  
**(Clause 0.3)**

**Subcommittee Members:**

1. Shri Siva Kasturi, Shell India Markets Pvt Ltd (Convenor)
2. Shri A K Kanaujia, DGQA CQA(PP), Kanpur
3. Ms. Aradhana Tripathi, HPCL, Mumbai
4. Shri Shakti Mishra, HPCL, Mumbai
5. Dr. Kashinath Sutar, BPCL, Mumbai
6. Shri Sarvesh Tomar, BPCL, Mumbai
7. Shri Shravan Kumar, BPCL, Mumbai
8. Shri Vivek Jain, BPCL, Mumbai
9. Dr. Devendra Singh, CSIR-IIP, Dehradun
10. Dr. Chanakya Tripathi, IOCL (R&D), Faridabad
11. Dr. Kavita Rai, IOCL (R&D), Faridabad
12. Shri Kamal Prakash Singh, RDSO, Lucknow
13. Shri Sandeep Sarode, Lubrizol, Mumbai
14. Shri Umesh Dwivedi, Gulf Oil Lubricants India Limited, Mumbai

**BIS Secretariat**

1. Ms. Kreeti Das, Sc. C, PCD



**Annexure C**

	<b>भारतीय मानक ब्यूरो</b> <b>BUREAU OF INDIAN STANDARDS</b>	
	<b>(PETROLEUM, COAL &amp; RELATED PRODUCTS DEPARTMENT)</b>	
<b>DRAFT MINUTES</b>		
<b>25 October 2023, Wednesday, 1430 - 1630 h</b>		
<b>AUTOMOTIVE AND INDUSTRIAL GREASES SUBCOMMITTEE</b>		<b>8<sup>th</sup> Meeting</b>
<b>Convenor: Dr. Tarunendr Singh, BPCL, Mumbai</b>		<b>Member Secretary: Ms. Kreeti Das</b>

**ITEM 0 OPENING OF THE MEETING**

**0.1 Welcome address**

On behalf of BIS, Ms. Kreeti Das, Sc. C, welcomed all members to the 8<sup>th</sup> meeting of PCD 25:SC 3.

**0.2 Opening remarks by the Convenor**

Convenor, Dr. T Singh, welcomed all members to the 8<sup>th</sup> meeting of PCD 25:SC 3 and looked forward to thorough discussion on the documents under development.

**0.3** The attendance of the meeting is given in **Annex I**.

**ITEM 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING**

The Subcommittee **CONFIRMED** the minutes of the last meeting, as circulated.

**Item 2 TITLE, SCOPE AND COMPOSITION OF PCD 25:SC 3**

**2.1** The Subcommittee **NOTED** the title and scope of PCD 25:3 and the list of standards to be covered under PCD 25:3.

The final approved list of standards under PCD 25:SC 3 is given below:

**List of Indian Standards under the Scope of PCD 25:3**

Sl. No.	Indian Standard	Title
7.	IS 408 : 2020	Grease No. 0, Graphited — Specification ( Third Revision )
8.	IS 495 : 1967	Specification for graphite, flake for lubricants (First Revision)





9.	IS 506 : 2019	Automotive and other general purpose grease specification (Fourth Revision)
10.	IS 507 : 1993	General purpose grease for defence applications - Specification (Third Revision)
11.	IS 508 : 2022	Grease Graphited - Specification (fifth revision)
12.	IS 719 : 2022	Antifriction Bearing Grease (third revision)
13.	IS 720 : 2022	Locomotive Greases
14.	IS 958 : 2020	Temporary Corrosion Preventives, Grease Type, Soft Film Specification ( Third Revision )
15.	IS 7514 : 2020	Grease, Low Temperature Specification ( Second Revision )
16.	IS 7623 : 2019	Multipurpose industrial grease - Specification (Third Revision)
17.	IS 9136 : 2022	Calcium Complex Grease - Specification (second revision)
18.	IS 9917 : 2022	Calcium Base Heat Stable Grease - Specification (second revision)
19.	IS 10647 : 1983	Specification for wheel bearing grease
20.	IS 11637 : 2022	Calcium Based EP Grease - Specification (first revision)
21.	IS 12203 : 1999	Lithium base grease for automotive purposes - Specification (First Revision)
22.	IS 12790 : 1999	Non - Soap grease - Specification (First Revision)
23.	IS 14847 : 2000	Lithium complex grease for industrial purposes - Specification

**COMMITTEE DECISION:** The Committee **NOTED** the list of standards under SC 3.

**2.2** The Subcommittee **NOTED** items 2.4 of the agenda.

### ITEM 3 R&D PROJECTS TO SUPPORT STANDARDIZATION


The Subcommittee **NOTED** item 3 of the agenda regarding R&D project provision introduced by BIS.

### ITEM 4 ACTIVITIES OF AUTOMOTIVE AND INDUSTRIAL GREASES SUBCOMMITTEE

#### 4.1 Draft Standards/Amendments for Finalization

Sl. No.	Document No.	Decision in Previous Meetings	Subcommittee Recommendation
i.	<b>PCD 25 (17990)</b> <b>Second Revision of IS 495 : 1967 Specification for graphite flake for lubricants</b>	<ul style="list-style-type: none"> <li>The Subcommittee <b>REVIEWED</b> the comments received on WC document and <b>RECOMMENDED</b> not to accept the comment as laboratory equipment are periodically calibrated and there is no need to refer to IS 6365 for electric oven used in the test method.</li> </ul>	<ul style="list-style-type: none"> <li>The Subcommittee <b>NOTED</b> that the document has been sent for printing.</li> </ul>



		<ul style="list-style-type: none"> <li>Hence, the Subcommittee <i>RECOMMENDED</i> to finalize the document and send it for printing with approval of PCD 25</li> <li>The Committee <i>AGREED</i> with the recommendation of Subcommittee</li> </ul>	
<p>ii.</p>	<p><b>PCD 25 (14340)</b></p> <p><b>Second Revision of IS 12203 : 1999 Lithium Base Grease for Automotive Purposes</b></p>	<ul style="list-style-type: none"> <li>The Subcommittee <i>RECOMMENDED</i> BIS Sectt to prepare the WC document, send it to Dr. T Singh and Dr. N K Pokhriyal for checking, and issue into WC for 1 month as there is urgent requirement of revised standard</li> <li>The Committee <i>AGREED</i> with the recommendation of Subcommittee</li> <li>2<sup>nd</sup> WC draft circulated on 18 Aug 2023 for a period of 1 month. Comments received.</li> </ul>	<ul style="list-style-type: none"> <li>The Subcommittee <i>DELIBERATED</i> on the comments received on WC and provided its recommendations.</li> <li>As there were no changes to the document, the Subcommittee <i>RECOMMENDED</i> to finalize the document for printing.</li> </ul> <p><b>COMMITTEE DECISION: The Committee examined the comments on WC and the recommendations of Subcommittee.</b></p> <p> Comments%20of%20PCD%2025(14340)\</p> <p><b>Chairperson suggested that justification is required to prescribe minimum value of 90 for viscosity index, as it eliminates the use of naphthenic base oils, which provide the benefits in terms of yield and low temperature fluidity. Hence, he advised the Convenor to get justification from Standards greases for their comments as well as to check market data and verify if minimum 90 for VI is required.</b></p> <p><b>Committee authorized Chairperson and convenor to finalise VI requirement, after considering the justification/ inputs collected, and the document may be finalized for printing with the approval of Chairperson.</b></p>



**4.2 Draft Standards/Amendments for Approval for Wide Circulation**

Sl. No.	Indian Standard/Document No.	Decision in Previous Meetings	Subcommittee Recommendation										
i.	<p><b>PCD 25 (14360)</b></p> <p><b>First Revision of IS 10647 : 1983 Specification for wheel bearing grease</b></p>	<ul style="list-style-type: none"> <li>The Subcommittee <i>RECOMMENDED</i> BIS Sectt to prepare the WC document, send it to Dr. T Singh and Dr. N K Pokhriyal for checking, and issue into WC for 1 month as there is urgent requirement of revised standard</li> <li>The Committee <i>AGREED</i> with the recommendation of Subcommittee</li> </ul>	<ul style="list-style-type: none"> <li>Convenor confirmed that he will discuss the WC document prepared by BIS with Dr. Pokhriyal and provide inputs to BIS.</li> <li>The Subcommittee <i>DIRECTED</i> BIS to issue the document into 2<sup>nd</sup> WC for 1 month once feedback received from Convenor.</li> </ul> <p><b>COMMITTEE DECISION: The Committee <i>ENDORSED</i> the recommendation of SC 3.</b></p>										
ii.	<p><b>Fourth Revision of IS 507 : 1993</b></p> <p><b>General purpose grease for defence applications - Specification</b></p>	<ul style="list-style-type: none"> <li>The Subcommittee noted that the modified draft provided by Dr T Singh, Convener PCD 25:3 and the new requirements added in the draft considering the additional test that had been mentioned in the bids invited by the Ministry of Defence for LG 280 Grease Grade 2 as per IS 507. The details of the new requirements have been mentioned below.</li> </ul> <table border="1" data-bbox="491 1279 1050 1892"> <tr> <td data-bbox="491 1279 647 1621">Wear Preventing Properties mean wear Scar Dia, mm, Max</td> <td data-bbox="647 1279 764 1621">0.70</td> <td data-bbox="764 1279 880 1621">0.70</td> <td data-bbox="880 1279 997 1621">0.70</td> <td data-bbox="997 1279 1050 1621">IP Ba ter 75 loa Kg ru pe mi</td> </tr> <tr> <td data-bbox="491 1621 647 1892">Extreme pressure Properties Mean Hertz Load, Kg, Min</td> <td data-bbox="647 1621 764 1892">40</td> <td data-bbox="764 1621 880 1892">40</td> <td data-bbox="880 1621 997 1892">40</td> <td data-bbox="997 1621 1050 1892">IP (R tir Se</td> </tr> </table>	Wear Preventing Properties mean wear Scar Dia, mm, Max	0.70	0.70	0.70	IP Ba ter 75 loa Kg ru pe mi	Extreme pressure Properties Mean Hertz Load, Kg, Min	40	40	40	IP (R tir Se	<ul style="list-style-type: none"> <li>The Subcommittee <i>NOTED</i> the status and <i>DIRECTED</i> BIS to send the document for printing at the earliest.</li> </ul> <p><b>COMMITTEE DECISION: The Committee <i>ENDORSED</i> the recommendation of SC 3.</b></p>
Wear Preventing Properties mean wear Scar Dia, mm, Max	0.70	0.70	0.70	IP Ba ter 75 loa Kg ru pe mi									
Extreme pressure Properties Mean Hertz Load, Kg, Min	40	40	40	IP (R tir Se									



		Evaporati on Loss % by mass at 100±2°C for 1 hrs, Max	10	10	15	IP	183
		Roll Stability a. Condition of Grease b. Work penetrati on change from original	No liquific ation or separa tion -25 to +45	No liquific ation or separa tion -25 to +45	No liquific ation or separa tion -25 to +45	[P:	165]
		Oxidation Stability pressure drop after 100 Hrs, kpa, Max	35	35	35	[P:	94]
		<ul style="list-style-type: none"> <li>• The Subcommittee recommended to change the requirement of Mineral Lubricating Oil in clause 4.2.1 to ISO VG 150 for Grade 1, ISO VG 100 for Grade 2 and ISO VG 22 for Grade 3.</li> <li>• The Subcommittee recommended to add clause 4.2.2 “Calcium based Soap with desired additives to meet Extreme Pressure, Antiwear, Oxidation Stability, Rust and Corrosion tests.”</li> <li>• The Committee reviewed the recommendations of the Subcommittee and decided to change the Flash Point, Min of Mineral Lubricating Oils in clause 4.2.1 to 230 °C for Grade 1, 220 °C for Grade 2 and 160 °C for Grade 3 and agreed with rest of the recommendations of the Subcommittee</li> <li>• The Committee <i>DIRECTED</i> BIS Sectt to prepare the WC document, send it to Dr. T Singh and Dr. N K Pokhriyal for checking, and issue into WC for 2 months</li> </ul>					



Sl. No.	Subject	Decision in Previous Meetings	Subcommittee Recommendations
i.	<b>Greases for Electric Vehicles</b>	<ul style="list-style-type: none"> <li>• The Committee <b>RECOMMENDED</b> BIS to write to Balmer Lawrie for nomination of new Convenor of the panel</li> <li>• The Committee <b>DECIDED</b> to transfer the panel to PCD 25:SC 3 and <b>REQUESTED</b> SC Convenor to ensure that panel meetings are conducted before SC and main committee meetings</li> <li>• Lubrizol informed the Committee that draft specification was prepared in the panel and Committee <b>REQUESTED</b> Lubrizol to share the draft specification with BIS</li> <li>• BIS contacted Balmer Lawrie for nomination of Convenor of panel, however they informed that the organization does not have expertise on the subject</li> <li>• Balmer Lawrie nominated Dr. Vijaybaskar V as member of the panel</li> <li>• Dr. T Singh agreed to become the Convenor of the panel.</li> </ul>	<ul style="list-style-type: none"> <li>• The Subcommittee <b>NOTED</b> the BIS has prepared a P-draft and shared with Convenor for feedback</li> <li>• Dr. T Singh informed some technical information was incomplete in the document and same has been sought from Lubrizol</li> <li>• He confirmed that the panel will meet by mid-November for preparation of P-draft.</li> </ul> <p><b>COMMITTEE DECISION: The Committee <b>ENDORSED</b> the recommendation of SC 3.</b></p>

**ITEM 5 VOTE OF THANKS**

The meeting ended with a vote of thanks from BIS to the Convenor and all members.



**ANNEX I**  
**Meeting Attendance**  
**(Clause 0.3)**

**Subcommittee Members:**

1. Dr. Tarundendr Singh, BPCL, Mumbai (Convenor)
2. Shri Vishal K Sinha, BPCL, Mumbai
3. Ms. Aradhana Tripathi, HPCL, Mumbai
4. Shri Abhijit A Sarkar, HPCL, Mumbai
5. Dr. N K Pokhriyal, IOCL R&D, Faridabad
6. Dr. Virender Kumar, IOCL (Mktg), Mumbai
7. Shri H S Negi, IOCL (Mktg), Mumbai
8. Shri P Ramesh, Ashok Leyland, Chennai
9. Shri Vijay Deshmukh, Standard Greases & Specialities Private Limited, Mumbai
10. Shri Shrey Garg, The Waxpol Industries Limited, Kolkata

**BIS Secretariat**

1. Ms. Kreeti Das, Sc. C, PCD