



Product Certification of
Cuplump Modified Bitumen (CMB):
Application for Certification



MALAYSIAN RUBBER BOARD
Stesen Penyelidikan RRIM Sg. Buloh
Bangunan IRPEC, Lembaga Getah Malaysia
47000 Sungai Buloh, Selangor
Regulatory and Quality Assurance Unit
Tel: 03 – 6145 9400/9488
Fax: 03 – 6157 6525
Email: pcs@lgm.gov.my

1. Scope

- 1.1 Cuplump Modified Bitumen (CMB) intended for application in rubberized road and using the certified Bituminous Cuplump (BC) as part of the raw material.

2. Product Certification System Type

- 2.1 MRB uses ISO System No. 5 as the certification scheme. Under this system, certification is granted only if the product meets with the specified standard and market surveillance to ensure continuous compliance with the standard.
- 2.2 The ISO System No. 5 involves types of testing and assessment of factory quality management system and its acceptance followed by surveillance that takes into account the assessment of factory Quality Management System (QMS) and testing of samples from the producer.

3. General Requirements of Certification

3.1 Application Certification Procedures

- 3.1.1 Surgical glove producer who wishes to have its product certified by MRB need to apply to the Product Certification Secretariat (PCS) by the application form through LGM official website (<https://pcos.lgm.gov.my/PCOS/Application.aspx>).
- 3.1.2 In addition to comply with the General rules governing the MRB Product Certification system (see Product Certification: MRB – PCB – 01: Rules Governing Rubber Product Certification), producers applying for certification are also required to conform to the following:
- a) Provide all necessary information required by the MRB for the purpose of evaluation of the product(s) to be certified. Applicants may be required to provide documentary proof that their productions are technically capable in meeting the specified product.
 - b) Provide documentary evidence that the certificate of quality management system (QMS) obtained from accredited certification body.
 - c) Pay all relevant application fees to the MRB.
 - d) Allow the MRB PC (Product Certification) inspector to collect samples for the evaluation process. There should be no interference on the part of the applicant in terms of how random samples are selected by the MRB PC inspector.
 - e) Samples may be taken at any point after packaging from the production line and samples may also be taken at export points or from the market.
 - f) While all information supplied by the applicant shall be treated with utmost confidentiality by the MRB, the applicant shall permit the MRB to use and release whatever information obtained in the course of the application to the public or government authorities as deemed proper and necessary by the MRB, or as required by existing law or regulation.

- 3.1.3 On receipt of the application, the Product Certification Secretariat (PCS) will provide a written acknowledgement to the applicant, if all fees have been received and all information required is in order.
- 3.1.4 MRB will inform the applicant with regard to an inspection to the factory for the purpose of certification assessment. Satisfy with the assessment, the applicant shall be issued a certificate of conformity. There are maximum of three (3) re-assessment carried out during certification process, failing which, the applicant need to submit new application form together with the application fee.
- 3.1.5 The successful applicants shall also be permitted to use the MRB Conformity Mark on their product and/or packaging. The approved applicant shall be registered and added to the certified supplier list (which may be made public and each certification shall be address-specific).The Product Certification Committee (PCC) shall have access to this list at any time.
- 3.1.6 The detail of the certification process is shown in Appendix 1.

3.2 Product Sampling

- 3.2.1 CMB shall be sampled and inspected in accordance with ISO 2859-1 based on the total CMB produced (in tonnage).
- 3.2.2 The inspection levels and acceptable quality levels (AQLs) shall conform to those specified in Table 1 for the characteristics listed.

Table 1 - Inspection Levels and Acceptable Quality Levels (AQLs)

Characteristics	Inspection Level	AQL
Penetration	S-3	0.4
Ring & ball softening point	S-3	0.4
Flash Point	S-3	0.4
Loss on heating	S-3	0.4
Viscosity, max. 3 Pa.s, test temperature 135 °C	S-3	0.4
Dynamic shear, G*/sin δ minimum 1.00kPa, 10 rad/s, test temperature °C	S-3	0.4
Dynamic shear, G*/sin δ minimum 2.20kPa, 10 rad/s, test temperature °C	S-3	0.4
Natural Rubber content	S-3	0.4
Identification of β-sitosterol in natural rubber (NR)	S-3	0.4

3.3 Sampling Method

- 3.3.1 Product sampling during inspection shall be randomly selected and sample shall be from the representative scope of application for certification. Samples taken for certification shall be taken from products that have been identified by the manufacturer as having “Passed internal QC”.
- 3.3.2 Sample may be taken from top, middle or bottom of the tank.

3.3.2 A total of 1kg of identified CMB will be collected during the inspection.

3.4 Product Testing

3.4.1 The samples collected shall be tested using the method as listed below:

Table 2: Testing Method

No	Testing parameter	Test Method
1.	Penetration	ASTM D 5
2.	Ring & ball softening point	ASTM D36
3.	Flash Point	AASHTO T48
4.	Loss on heating	AASHTO T240
5.	Viscosity, max. 3 Pa.s, test temperature 135 °C	ASTM D4402
6.	Dynamic shear, $G^*/\sin \delta$ minimum 1.00kPa, 10 rad/s, test temperature °C	AASHTO T315
7.	Dynamic shear, $G^*/\sin \delta$ minimum 2.20kPa, 10 rad/s, test temperature °C	AASHTO T315
8.	Natural Rubber content	MRB test method – proposed to be included as Annex on 1H NMR
9.	Identification of β -sitosterol in natural rubber (NR)	MRB test method – proposed to be included as Annex on GC-FID

3.5 Product Specification

3.5.1 The test result shall conform to the specifications in Table 3 below:

Table 3: Specification

No	Testing parameter	Specification
1.	Penetration (mm)	40 – 60
2.	Ring & ball softening point (°C)	≥ 60
3.	Flash Point (°C)	≥ 230
4.	Loss on heating (% wt)	<1
5.	Viscosity, max. 3 Pa.s, test temperature 135 °C	<3.0
6.	Dynamic shear, $G^*/\sin \delta$ minimum 1.00kPa, 10 rad/s, test temperature °C	≥76
7.	Dynamic shear, $G^*/\sin \delta$ minimum 2.20kPa, 10 rad/s, test temperature °C	≥76
8.	Natural Rubber content, %	4 – 8
9.	Identification of β -sitosterol in natural rubber (NR)	Presence or absence of NR

3.6 Surveillance Inspection

- 3.6.1 Successful certified producers shall be subjected to the MRB surveillance program, which will be carried at least twice a year. All surveillance shall be announced and producer need to inform MRB on the availability of certified CMB.
- 3.6.2 Samples are to be marked by the MRB PC inspector personnel and sent to the laboratories.
- 3.6.3 All test results of the surveillance inspection will be sent to the producer. If the batch pass the specifications, it can be distributed as MRB certified CMB.
- 3.6.4 Any failure will cause the producer to receive a warning letter. The production which fail the test will be rejected. The producer shall immediately cease to label affected product with the Certification Mark and not made any further reference to its certified status. Producer shall take necessary corrective action and submit the report to MRB for verification.
- 3.6.5 Any producer whose product does not meet the technical specification after the verification inspection shall face the consequences of termination of certification.
- 3.6.6 The production which has been sampled under surveillance inspection shall be excluded from routine inspection procedures.
- 3.6.7 Detail of MRB Cuplump Modified Bitumen (CMB) surveillance inspection process flow can be referred to Appendix 2.
- 3.6.8 Ad-hoc surveillance visits may be conducted if there is reason to believe that a certified manufacturer has not fully controlled its production processes. Samples may be taken for additional testing and appropriate action taken based on observation during such visits and test results.
- 3.6.9 The manufacturer shall be responsible to inform MRB immediately should any major NC raised in the QMS audits and suspension or withdrawal has been imposed by Certification Body of QMS.

3.7 Routine inspection

- 3.7.1 Successful certified producers shall be subjected to conduct routine inspection to all certified CMB produced to ensure continuous compliance with the specified standards.
- 3.7.2 The sampling and testing method shall follow as stated in 3.2 and 3.3. For routine inspection, certified producer shall test the penetration, softening, flash point and dynamic shear. Method and specification are shown in Table 2 and 3 above.
- 3.7.3 A copy of all test results shall be sent to MRB for verification and reference purposes. Test report shall be signed and verified by qualified personnel appointed by factory. The qualification of personnel shall be recognized by MRB.
- 3.7.4 The batch which fail the test will be rejected and shall immediately cease to label affected product with the Certification Mark and not made any further reference to its certified status. Producer shall take necessary corrective action and submit the report to MRB for verification.

3.7.5 Detail of MRB Cuplump Modified Bitumen (CMB) routine inspection flow can be referred to Appendix 3.

3.8 Market Surveillance

3.8.1 Market surveillance will be conducted at least once a year and any charges incurred will be charged to the producer accordingly.

3.8.2 If fail, the producer will be notified and shall provide explanation (on investigation of root cause, corrective and preventive action taken) within 14 days failing which, the certification status will be terminated.

3.8.3 Detail of MRB Cuplump Modified Bitumen (CMB) Market Surveillance flow can be referred to Appendix 4.

4. Amendment to Scope of Certification

4.1 A certified producer may at any time make a formal application to the MRB to amend its scope of certification, e.g. increase/reduction of scope, using the appropriate form (refer Appendix 5) available from the Product Certification Secretariat. The MRB will decide on the action necessary in response to the request, which may require a new or additional evaluation. The application shall be informed in writing on the action taken by the MRB regarding the application.

5. Use of the Mark of Conformity

5.1 Certified producers are permitted to use Mark of Conformity on their products and/or product packaging (where appropriate) and make reference to their certified status. The mark detailing the information of the producer and demonstrate that such products meet with specified standard(s)/specifications.

5.2 Where practicable, Mark of Conformity shall be reproduced in the form as detailed in Figure 5. Any enlargements or reductions shall retain the same proportions but shall be sufficiently large for the wording to be clearly legible.

5.3 Mark of Conformity may be imposed on products and/or their smallest units of packaging (where appropriate) in whichever manner deemed practicable, and shall be applied together with certification code to whom the product is certified to.

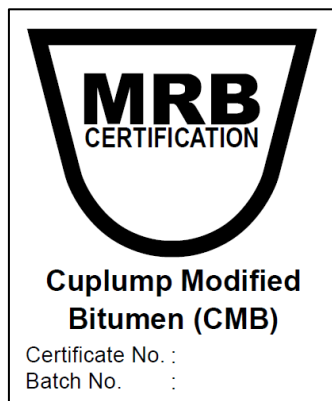


Figure 1: Mark of Conformity

6. Suspension of Certification Status

- 6.1 The certification may be suspended for a limited period which shall be determined by the Director General, as advised by the Product Certification Panel (PCP), under the following circumstances:-
- a) when a factory fails a surveillance, and is not able to take corrective action within a month of being notified of its short-coming.
 - b) non-compliance with the technical specification. Corrective actions may include re-inspection/re-testing of the surgical gloves and removal of mark of conformity prior to shipment from the factory.
 - c) improper use of the certificate or mark of conformity, e.g. in misleading prints, advertisement, promotional materials or other literature. Corrective actions may include the amendment or discontinuance of such advertising promotional material.
 - d) failure to furnish samples as may be required by the MRB for examination and testing purposes.
 - e) obstructing the immediate access by the PC Inspector of the MRB to the factory or warehouse premises covered by the certificate during the working hours of the factory.
 - f) failure to provide co-operation to facilitate the inspection of records by the PC Inspector.
 - g) non-payment of the annual fees to the MRB.
 - h) failure to pay costs of testing.

7. Cancellation and Withdrawal of the Certificates

- 7.1 Apart from the suspension of a certificate, a certificate may be withdrawn in the following cases:-
- a) Fails a surveillance, and is not able to take comprehensive corrective action within three (3) months of first being notified of its short-coming.
 - b) Non-compliance is of a serious nature
 - c) Certificate holder fails to comply with due settlement of his financial obligations
 - d) Inadequate measures taken by the certificate holder in the case of suspension
 - e) Legal action on the misuse of the MRB certification by a third party
 - f) No person shall use the MRB logo unless the person holds a valid certificate issued by the MRB.
 - g) A person who contravenes the above rule shall be guilty of an offence and shall be subjected to the Trade Descriptions Act 1972 (Act 87).

- 7.2 If the certification of a product is terminated (cancelled/withdrawn), the following actions shall be undertaken immediately by the producer:
- a) The producer shall immediately cease to label any product with the Mark of Conformity and certification code and not made any further reference to its certified status.
 - b) The producer shall surrender the valid certificate to the MRB.
 - c) The MRB has the right to publicise the name of product (and its producer) which has been suspended or has its certified status withdrawn. Likewise, the MRB will notify when suspension on a particular product (producer) has been lifted.
- 7.3 The MRB reserves the right to take appropriate action, including legal ones, against any producer who violates the above rules during the period of certification, or after the certification has been withdrawn.

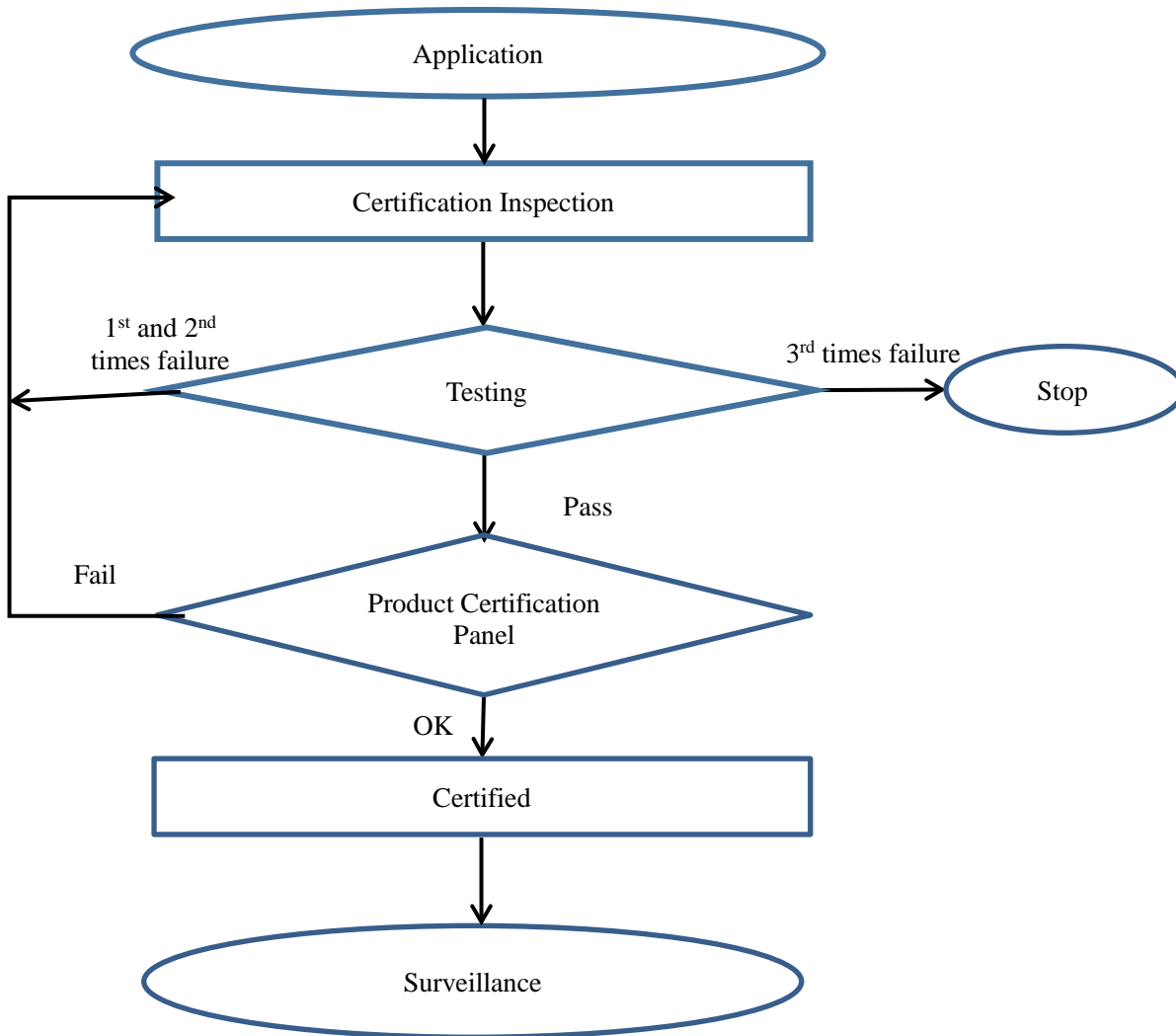
8. Certificate validity

- 8.1 Certificate will be renew annually. The renewal will be based on the test result which will be carried out at least twice a year.

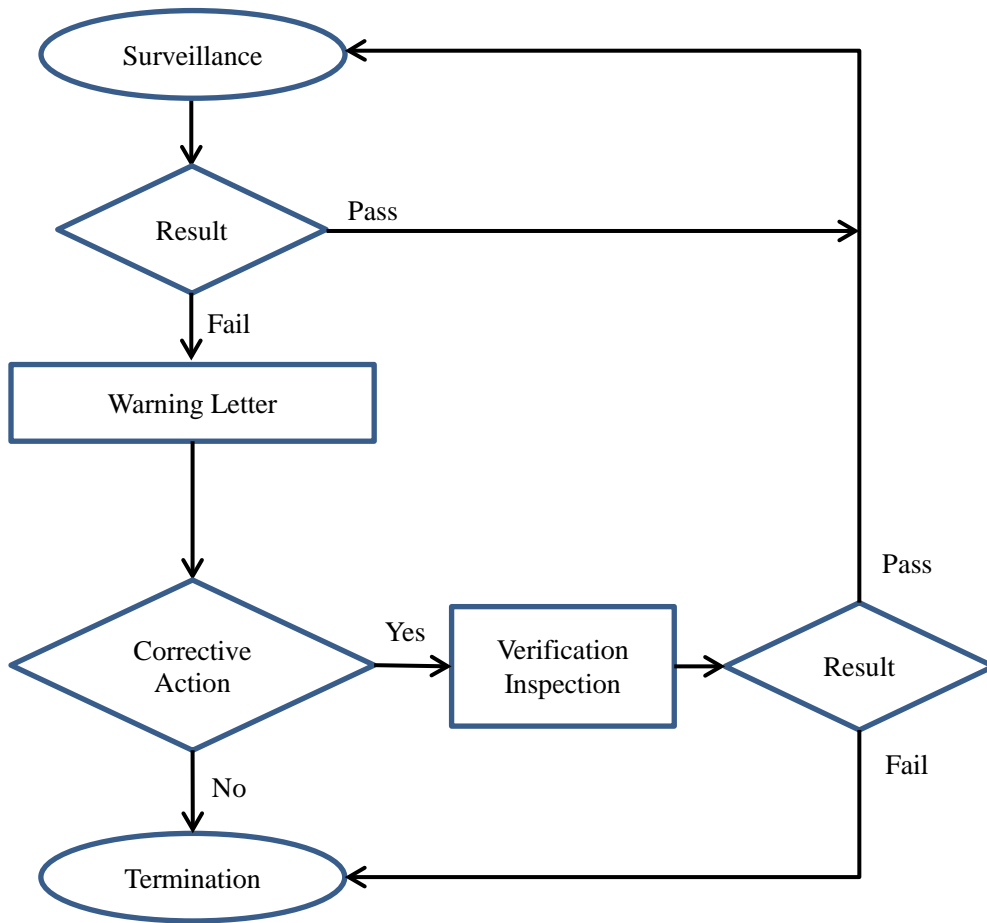
9. Charges

- 9.1 The certification shall be charged by the certification body as per Appendix 6.

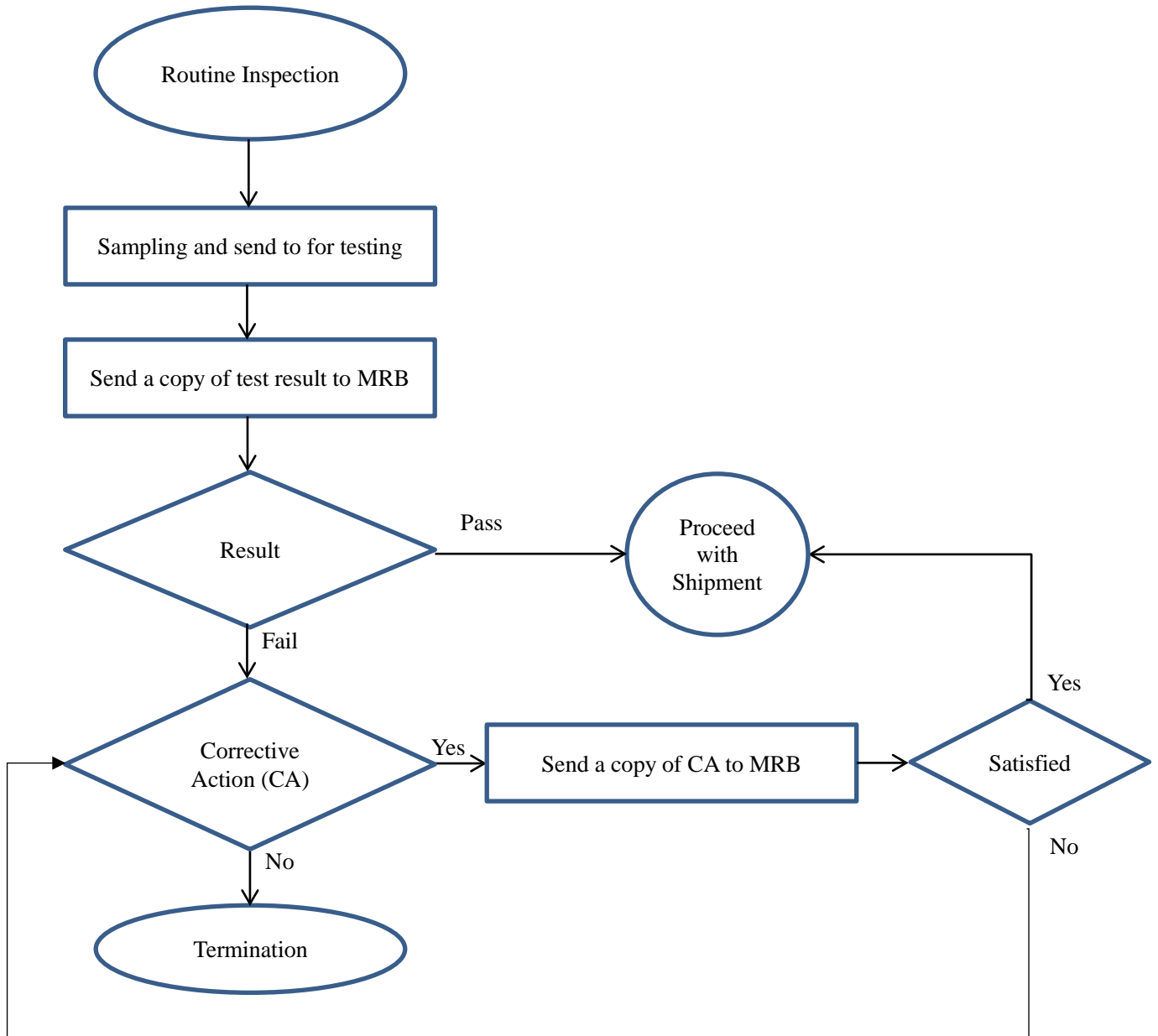
Attachment 1: Flow Chart of Certification Process for Cuplump Modified Bitumen (CMB) Certification Program



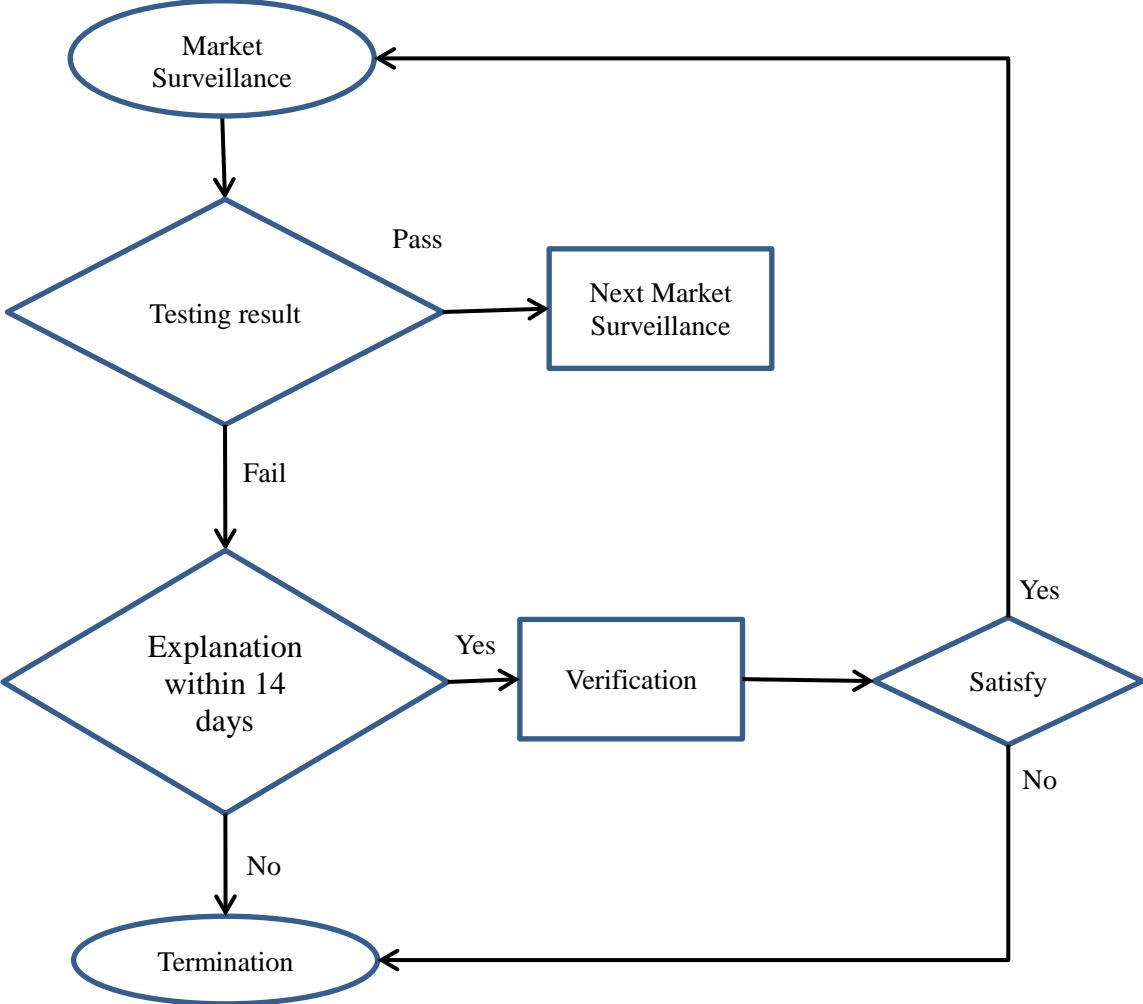
Attachment 2: Flow Chart of Surveillance Inspection for Cuplump Modified Bitumen (CMB) Certification Program



Attachment 3: Flow Chart of Routine Inspection for Cuplump Modified Bitumen (CMB) Certification Program



Attachment 4: Flow Chart of Market Surveillance for Cuplump Modified Bitumen (CMB) Certification Program



MALAYSIAN RUBBER BOARD Product Certification Program

Application for Change (extension/reduction) of Scope of Certification

Name of Certified Producer:

Address:
.....
.....

Contact Person:

Designation:

Tel: Fax:

Current scope of certification	Scope of certification sought/ reduced

Signature: Date:

=====

FOR OFFICE USE ONLY

Received Date :

- 1. Client information is sufficient ()Yes ()No
- 2. Product information is sufficient ()Yes ()No
- 3. No difference in understanding between the MRB and the Client ()Yes ()No
- 4. The scope of certification sought is defined ()Yes ()No
- 5. The means are available to perform all evaluation activities ()Yes ()No
- 6. MRB has the competence and capability to perform the certification activity. ()Yes ()No

Reviewed by: Approved by :

Date of Inspection :

Team leader/ PC Inspector :

Attachment 6: Fees and Cost of Testing for Cuplump Modified Bitumen (CMB)

FEES PAYABLE

- One time application fee
 - RM 3,000.00 per application

- Inspection fee (2 inspectors)
 - Peninsular Malaysia : RM 1,250.00 per inspection
 - Sabah/ Sarawak : RM 1,250.00 per inspection excluding travelling (aviation, land and maritime) and accommodation

- Renewal fee for each certificate per year (payable annually one year after the issuance of Product Certification)
 - RM 500.00 per certificate

- Testing fee
 - RM 9,300.00 per lot

- Market Surveillance
 - Cost of sample taken : based on price of product
 - Travelling for sample taken : RM 1,250.00
 - Testing fee : RM 9,300.00 per lot