

**BEFORE THE HONOURABLE NATIONAL GREEN**  
**TRIBUNAL PRINCIPAL BENCH, NEW DELHI**

**Original Application No. 568/2019**

**James Jose, Managing Director**

**CGR Hallmarkers Pvt. Ltd,**

**Applicant (s)**

**Versus**

**Government of India**

**Respondents (s)**

**REPORT FILED BY THE ENVIRONMENTAL ENGINEER-1 KERALA**  
**STATE POLLUTION CONTROL BOARD, HEAD OFFICE,**  
**THIRUVANANTHAPURM IN ORIGINAL APPLICATION NO. 568/2019**  
**ON BEHALF OF THE JOINT COMMITTEE.**

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Dated this the 7<sup>th</sup> September, 2019

**BEFORE THE HONOURABLE NATIONAL GREEN TRIBUNAL**  
**PRINCIPAL BENCH, NEW DELHI**

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**ON BEHALF OF THE JOINT COMMITTEE.**

I, M.P. THRIDEEP KUMAR, Aged 54 years S/o, late M.K. Purushothamam, Environmental Engineer-1, Head office, Kerala state Pollution Control Board, Thiruvananthapuram, do here by submit that as per the order dated 5/08/2019 of the Hon'ble National Green Tribunal in O.A No 568/2019, Kerala State Pollution Control Board, is the modal agency for coordination, compliance and for submitting a factual and action taken report in co-ordination with the Central Pollution Control Board. Accordingly vide proceedings No. PCB/HO/EE4/NGT/OA568/2019 dated 14/08/2019 the Member Secretary, Kerala State Pollution Control Board, constituted a committee with (1) Dr. Deepesh.V, Scientist B, Central Pollution Control Board RD, Bengaluru and (2) Environmental Engineer-1 Head office, Thiruvananthapuram as members. True Copy of the Proceedings is produced

herewith and marked as **Annexure R(a)**. I am conversant with the facts of the said case and I may state on behalf of the joint committee as follows:

- 1) I have been authorized vide letter No. PCB/HO/EE4/NGT/OA 568/2019 dated 14/08/2019 (**Annexure R (a)**) to represent the Kerala State Pollution Control Board in this case.
- 2) In compliance of the order of the Hon'ble National Green Tribunal dated 05/08/2019, the joint committee (of CPCB and KSPCB) held a discussion with the complainant Sri. James Jose, Managing Director, CGR Hallmarkers Pvt. Ltd., Ernakulam, Kerala and visited his facility in Ernakulam and two other facilities in Ernakulam on 23<sup>rd</sup> and 24<sup>th</sup> August, 2019. During discussion and visit, very significant and vital information on this issue of certification and hallmarking of gold as well as silver jewellery collected and thus the following is most respectfully submitted.
- 3) The BIS (Bureau of Indian Standards) Hallmark is a hallmarking system for gold as well as silver jewelry sold in India certifying the purity of precious metals. Hallmaking certifies that the piece of jewelry conforms to set of standards laid by the BIS. The BIS system of hallmarking of gold jewellery began in April 2000. The standard specification governing this system are the following:

| Sl.No. | IS system | Title  |
|--------|-----------|--|
| 1      | IS 1417   | Grades of Gold and Gold Alloys, Jewellery/ Artefacts.                                  |
| 2      | IS 1418   | Assaying of Gold in Gold Bullion, Gold alloys and Gold Jewellery Artefacts.            |
| 3      | IS 2790   | Guidelines for Manufactured of 23,22,21,20, 19, 18, 17, 16,14 and 9 carat Gold Alloys. |
| 4      | IS 3095   | Gold solders for use in manufacture of jewellery.                                      |

4) BIS hallmark for gold jewellery consists of following components:

- BIS logo
- Purity of gold (91.6, 83.3, 75.0 or 58.5%)
- Logo of the assaying/ hallmarking centre.
- Code name representing the jeweller.

The testing of the jewellery as well as the marking is done in approved, private assaying & hallmarking centres across the country. Approval and monitoring of such private undertakings are done by BIS. Although, hallmarking gold jewellery is mandatory, it is yet to be implemented. Due to wide acceptance of BIS hallmarking among consumers, fake hallmarking of jewellery is on rise. Indian standard IS15820:2009 is the basis for recognition of assaying and hallmarking centres.

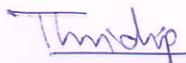
5) The BIs list in the Southern Region has a total of 277 approval centres, as shown below.

|                          |            |
|--------------------------|------------|
| Tamil Nadu               | 92         |
| Andra Pradesh            | 41         |
| Telangana                | 26         |
| Puducherry               | 2          |
| Kerala                   | 68         |
| Karnataka                | 48         |
| Laksha Dweep             | 0          |
| Andoman& Nicobar Islands | 0          |
| <b>Total</b>             | <b>277</b> |

*Thudip*

- 6) Obtained a copy of the Guideline for recognition & operation of assaying & hallmarking centres by the BIS, which is marked as **Annexure R(b)** is enclosed. For gathering all the necessary information related to the 68 hallmarking centres in Kerala a questionnaire was prepared and emailed to all the district offices of the Kerala State Pollution Control Board. The questionnaire marked as **Annexure R(c)** is enclosed. As per the information gathered from the District Offices of the Board, there are only 18 hallmarking centres functioning with the Consent to Operate of the Board.
- 7) To verify and ascertain the facilities provided for the hallmarking system and the pollution control measures established there, all or majority of the 68 centres in Kerala, have to be inspected. As these inspection and subsequent direction based on the inspection are essential for taking appropriate action on this, it requires at least 3 more weeks time. Hence, I humbly request on behalf of the joint committee to grant time upto 30<sup>th</sup> September 2019, for submitting final factual and action taken report

Dated this the 7<sup>th</sup> September, 2019

  
ENVIRONMENTAL ENGINEER-1  
HEAD OFFICE, KERALA STATE  
POLLUTION CONTROL BOARD

**M. P. THRIDEEPKUMAR**  
ENVIRONMENTAL ENGINEER

## APPENDIX

### RESPONDENTS ANNEXURES

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| 3       | Annexure R(b)- True Copy of the Guidelines for recognize operate of Assaying & Hallmarking centres.       |          |
| 4       | Annexure R(C) –True copy of the Gold Hallmarking Facility - Questionnaire                                 |          |

## PROCEEDINGS

Sub:- O.A.NO. 568/2019 Before the Hon'ble National Green Tribunal regarding air pollution caused by Bureau of Indian Standards (BIS) in the process of gold testing and hallmarking- Constitution of Committee - Sanctioned - orders issued.

### **KERALA STATE POLLUTION CONTROL BOARD**

PCB/HO/EE4/NGT/O.A.568/2019

Dated: 14/08/2019

Read: 1. Order dated 30/07/2019 in O. A. No. 568/2019 of the Hon'ble National Green Tribunal (Copy enclosed)  
2. E-mail dated 14/08/2019 from CPCB

### ORDER

The Hon'ble National Green Tribunal has registered Original Application No. 568/2019 air pollution caused by Bureau of Indian Standards (BIS) in the process of gold testing and hallmarking without compliance of pollution control norms.

The Hon'ble National Green Tribunal vide reference (1) ordered the Central Pollution Control Board and Kerala State Pollution Control Board to look into the matter and take appropriate action in accordance with law and furnish of actual and action taken report within one month by e-mail at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in). Vide reference (2) CPCB has informed that Dr. Deepesh has been nominated to the above committee. In compliance with the order issued by the Hon'ble NGT, a committee is hereby constituted with the following members.

1. Dr. Deepesh V.,  
Scientist B, CPCB RD,  
Bengaluru
2. The Environmental Engineer-1, Head Office,  
Thiruvananthapuram

The Kerala State Pollution Control Board will be the Nodal agency for co-ordination and compliance. The committee shall file a Report as per the order of the Hon'ble National Green Tribunal **within one month** by email in compliance of the order read above.

Sd/-

**MEMBER SECRETARY**

To

All Committee Members

**FORWARDED/ BY ORDER**



**ENVIRONMENTAL ENGINEER-4**

Item No. 70

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 568/2019

James Jose, Managing Director

CGR Hallmarkers Pvt. Ltd.

Applicant(s)

Versus

Govt. of India

Respondent(s)

Date of hearing: 05.08.2019

**CORAM:** HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON  
HON'BLE MR. JUSTICE S.P. WANGDI, JUDICIAL MEMBER  
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER  
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

**Application is registered based on a complaint received by post**

**ORDER**

Allegation in this letter, which has been treated as an application, is against the air pollution caused by acidic activities of the Bureau of Indian Standard (BIS) in the process of gold testing and hall marking without compliance of the pollution control norms.

Let the Central Pollution Control Board (CPCB) and Kerala State Pollution Control Board (KSPCB) look into the matter and take appropriate action in accordance with law and furnish a factual and action taken report to this Tribunal within one month from the date of receipt of copy of this order by e-mail at [ngt@ngt.nic.in](mailto:ngt@ngt.nic.in). The KSPCB will be the nodal agency for coordination and compliance.

A copy of this order, along with complaint, be sent to the KSPCB and CPCB by e-mail for compliance.

Needless to say that the order of National Green Tribunal is binding as a decree of Court and non-compliance is actionable by way of punitive action including imprisonment, in terms of the National Green Tribunal Act, 2010.

List for further consideration on 18.11.2019.

Adarsh Kumar Goel, CP

S.P. Wangdi, JM

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

August 05, 2019  
Original Application No. 568/2019  
A

**GUIDELINES FOR RECOGNITION & OPERATION  
OF ASSAYING & HALLMARKING CENTRES**

**ISSUED BY**

**BUREAU OF INDIAN STANDARDS,  
9, BAHADUR SHAH ZAFAR MARG,  
MANAK BHAWAN,  
NEW DELHI**

## **GUIDELINES FOR RECOGNITION & OPERATION OF ASSAYING AND HALLMARKING CENTRES**

### **1 GENERAL**

These guidelines stipulate the procedure for Grant, Operation, Renewal, Suspension and Cancellation of Recognition of Assaying and Hallmarking (A&H) Centres. These are to be read in conjunction with BIS Act 2016, BIS Rules 2018 and BIS (Hallmarking) Regulations 2018. In particular, the Grant, Operation, Renewal, and Cancellation of Certificate of Recognition are addressed in Chapter II of BIS (Hallmarking) Regulations, 2018. Any situation, in general, not covered in these guidelines is to be dealt as per the provisions of Act, Rules and Regulations by the Regional Offices and Branch Offices.

### **2 GRANT OF RECOGNITION**

**2.1** Any assaying centre set up in accordance with requirements specified in IS 15820 :2009 for assaying and hallmarking of gold and /or silver jewellery / artefacts, shall apply with self-certified copies of documents listed below from (a) to (f) to the Regional office of BIS having jurisdiction of the area where the A&H centre, with the application.

#### **a) Proof of establishment of the firm or company ( Any one of the document given below)**

- i) Certificate of Registration issued by Registrar of companies along with memorandum of articles
- ii) Registered Partnership Deed in case applicant is a Partnership Firm.
- iii) Certificate from a Chartered Accountant if applicant is a Proprietorship Firm.

#### **b) Proof of address of firm's premises ( Any one of the document given below)**

- i) Registration with State Government Authority/ Trade Licences
- ii) GST registration certificate.
- iii) Income Tax Assessment Order
- iv) Property tax receipt
- v) Rent agreement with last rent receipt
- vi) Sale/ Lease Deed agreement.

**c) Proof of Identity of the signatory**

i) Aadhar based verification/ e- signature

ii) Self-certified copy of any one of following documents as identity proof of signatory on the Application:

- Aadhar Card

- Driving Licence

- PAN card

- Voter Identity card

- Passport

- Identity Certificate with photo issued by Gazetted Officer on official letterhead.

**d) Map indicating location of premises from nearest land mark**

Location map of premises from some nearest prominent landmark for each outlet, as applicable (illustrative only).

**e) Quality manual of the A&H Centre prepared based on the Generic Quality Manual provided by BIS**

**f) Affidavit cum undertaking as specified in regulations**

**2.1.1 Non Acceptance of Application due to Antecedents**

Under the following situations, the application made by the Applicant for obtaining recognition may be rejected:

i) Prosecution case is pending or in the process of initiating prosecution case in the trial court against the applicant or person under section 29 of the BIS Act,2016.

ii) Applicant has made the application immediately after the case of misuse of Hallmark or any violation under Section 14 or Section 15 of BIS Act,2016 detected on the part of applicant.

iii) Misuse of Hall Mark or any violation under **Section 14 or Section 15** of BIS Act , 2016 detected on the part of applicant after the application was made to BIS.

**Note-**The applicant or firm who are falling under any one of the category mentioned at i),ii) and iii) above are **NOT** eligible to apply for certificate of recognition until they are free from these Charges. In case of conviction under Section 29 of the BIS Act, such applicant or firm shall not be eligible to apply for grant of recognition for a period of one year from the date of such conviction.

**2.1.2** Applicant whose earlier recognition was cancelled or not renewed and submitting application before completion of cooling period specified.

**2.1.3** Where a person(s) or firm who has been convicted under Section 29 of the BIS Act, 2016 makes an application for certificate of recognition, such person(s) or firm shall not be eligible to apply for grant of recognition for a period of one year from the date of such conviction.

**2.2** After recording the application, a Recognition Assessment of the A&H Centre (of 4 man-days duration i.e. by a team of two officers for two days either for gold or gold & silver) preferably within 15 days of recording the application to determine whether the A&H Centre has created the necessary infrastructure for assaying and hallmarking according to IS 15820:2009 shall be carried out.

**2.3** If the assessment report is found in order, HMO shall prepare the proposal for grant of recognition and put up to the DDGR as per Hallmarking Regulations 2018. Recognition will be granted by the DDGR in respect of gold and/or silver hallmarking.

**2.3.1.** In case the discrepancies are observed during the assessment a followup assessment may be made to verify the corrective actions made. In case the discrepancies can be ensured through documents only than the same may be made on desktop basis.

**2.4** Recognition shall be granted as per IS 15820:2009 with scope defined as:

**2.4.1** For Gold Jewellery / artefacts (as per IS 1417)

- a) for yellow gold jewellery / artefacts only;
- b)for white gold jewellery / artefacts only( Nickel based);
- c) for white gold jewellery / artefacts only ( Palladium based); and
- d) for combination of all above ( a to c)

**2.4.2** For Silver Jewellery / artefacts (as per IS 2112)

**2.5** Scope of recognition of an A&H centre may be considered for extension on request from the centre with relevant details of equipment and manpower. Scope may be extended through assessment by two man-days (one auditor for two days). If requested by an A&H centre, such assessment may be combined with renewal assessment. An endorsement for extension of scope shall be given in the Certificate of Recognition.

**2.6** The following types of changes or in combinations thereof may occur during the operation of the Certificate of recognition:

- a) Change in address of the premises;
- b) Change in the name of the Centre;
- c) Change in the Management of the Centre, with or without change in the name; and
- d) Change in the Logo of the Centre

For the above situations, the following type of actions shall be taken:

**2.6.1** In the case of (a) , the Centre shall inform the complete address of the new premises to which they intend to shift their centre and also intimate suspension of Hallmarking at the old premises to the Bureau. If they have not done so, suspension of Hallmarking at the old premises shall be imposed in accordance Hallmarking Regulations, 2018. Revocation of suspension shall be carried out in accordance Hallmarking Regulations, 2018. An endorsement for change in address shall be given in the Certificate of Recognition.

**2.6.2** In the case of (b), the relevant document(s) as indicated at 2.1 of this guidelines according to the type of change shall be obtained. An endorsement for change in name of the Centre shall be given in the Certificate of Recognition.

**2.6.3** In the case of (c), suitable documents establishing the name/ownership of the Centre premises by the new management are to be obtained and other required documents as indicated in at 2.1 of this guidelines according to the type of change shall be submitted by the new management. An endorsement for change in name of the Centre shall be given in the Certificate of Recognition.

**2.6.4** In the case of (d), an undertaking signed by the Proprietor/Partner/Director in their letter head along with the copy of revised quality manual incorporating the new logo shall be obtained. After the approval from DDGR for the change of logo, a communication shall be sent to the centre to this effect.

### **3 HALLMARKING FEE**

Hallmarking fee to the BIS as specified Hallmarking Regulations, 2018 shall be payable by the centre by 10<sup>th</sup> of the following month, failing which necessary action shall be initiated as per Hallmarking Regulations, 2018.

### **4 RENEWAL OF RECOGNITION**

**4.1** On receipt of renewal application from the A&H centre with fees and all enclosures, a renewal assessment in line with Hallmarking Regulations, 2018 shall be arranged of the A&H Centre of 2 man-days duration (i.e. one officer for two days) .

**4.2** If the renewal assessment report is found in order, HMO shall prepare the proposal for renewal of recognition subject to fulfillment of respective requirements and put up to the DDGR. Renewal will be done by the DDGR in respect of gold and/or silver hallmarking.

**4.3** In case discrepancies are observed in the renewal assessment, the A&H centre shall be advised to take necessary actions within stipulated time and submit the same to BIS verification. A follow up assessment may be planned by BIS for verification of the corrective actions if required.

**4.3.1** In case the compliance to the discrepancies observed during the renewal assessment could not be completed before the validity of the recognition either through follow-up visit or on desktop basis due to the delay from A&H Centre, action for deferment of renewal shall be taken immediately upto a period of six months from the date of validity as per Hallmarking Regulations, 2018. The renewal shall subsequently be considered after ensuring the compliance to the discrepancies observed.

**4.3.2** If renewal of recognition is pending with BIS due to any reasons which can not be assigned to the A&H centre, though renewal application along with requisite fee and documents have been received before the expiry of validity of recognition, the A&H centre will be allowed to function as recognized centre till a decision on the renewal is taken by BIS.

**4.4** The renewal of recognition may also be considered **without assessment** subject to the fulfillment of the following conditions in the operative period of three years:

- a) All surveillance inspections have been assessed as satisfactory (at least two surveillance inspections shall have been carried out) ; and
- b) No suspension of hallmarking have been imposed for the reasons stated at clause **5.3 & 5.5** of this guidelines.

## **5 ACTION ON FAILURE OF MARKET SURVEILLANCE SAMPLES**

**5.1** Suspension of Recognition granted by the BIS shall be done in accordance with provisions of Hallmarking Regulations, 2018 in situations given below:

“non-conformity of hallmarked precious metal articles established after in-house or independent testing”

**5.2** Cancellation or non-renewal of recognition of an assaying and hallmarking centre may be done in accordance with Hallmarking Regulations, 2018 in situations given below :

“articles marked with hallmark do not comply with the relevant Indian Standard;”

**5.3** To implement the provision of Hallmarking Regulations, 2018 specified at 5.1 and 5.2 above , guidelines given below shall be followed:

### **5.3.1 Shortage in fineness above 40 ppt**

If the failure of hallmarked article is observed with shortage in fineness of more than 40 ppt, the recognition shall be processed for cancellation with applicable cooling period as per Hallmarking Regulations, 2018.

### **5.3.2 Shortage in fineness above 5 ppt upto and including 40 ppt of the marked fineness**

If the failure of hallmarked article is observed with shortage in fineness above 5 ppt upto & including 40 ppt of the marked fineness irrespective of presence of prohibited elements or not, the recognition shall be put under suspension as per provision of the Hallmarking Regulations, 2018 on the first instance itself.

### **5.3.3 Shortage in fineness above 2 ppt & upto and including 5 ppt and/or presence of prohibited elements (in case of silver, shortage in fineness is upto and including 5 ppt of the marked fineness and/or presence of prohibited elements)**

**5.3.3.1** If it is the first failure, failure to be communicated to A&H Centre advising them to take corrective actions under intimation to BIS. In case more than one failure received and the samples are drawn on the same date, then these failures shall be considered as first failure.

**5.3.3.2** If it is the second failure, check number of pass samples & total samples drawn during last one year (one year previous to last sample drawl date) and calculate the pass percentage.

(a) If pass percentage is 60 % or above, failure to be communicated to A&H Centre advising them to take corrective actions under intimation to BIS.

(b) If pass percentage is less than 60 %, recognition shall be put under suspension as per provision of the Hallmarking) Regulations, 2018.

**5.3.3.3** If it is the third failure, check number of pass samples & total samples drawn during last one year (one year previous to last sample drawl date) and calculate the pass percentage.

(a) If pass percentage is 60 % or above, failure to be communicated to A&H Centre advising them to take corrective actions under intimation to BIS.

(b) If pass percentage is less than 60 %, recognition shall be put under suspension as per provision of the Hallmarking Regulations, 2018.

**5.3.3.4** If it is the fourth failure in shortage in fineness above 2 ppt & upto and including 5 ppt from the marked purity and/or presence of prohibited elements during last one year (one year previous to last sample drawl date) recognition shall be put under suspension as per provision of Hallmarking Regulations irrespective of number of pass samples.

**5.4** In case of situation where the Centre has been issued suspension for three times due to failure of hallmarked articles in an operative period of three years of recognition, the recognition shall be processed for cancellation as per provision of Hallmarking Regulations, 2018

## **5.5 Issues arising out of Surveillance Assessments**

**5.5.1** The recognition shall be put under suspension for the situations stipulated in Hallmarking Regulations, 2018.

**5.5.2** Hallmarking Regulation, 2018 stipulates non implementation of the provision of relevant standard which may lead to suspension of hallmarking. The non implementation of the provision of relevant standard is not limited to, but may include one or more of the following:

a) Non-functioning of test equipment, namely XRF machine, weighing balances, furnaces (cupellation, annealing);

b) Prima-facie evidence suggests that test results reported by A&H Centre are not genuine / valid; and

c) Non-availability of proper record for a particular lot(s) of hallmarked articles;

## **5.6 OTHER OBLIGATION TO A & H CENTRE**

**5.6.1** The A&H Centre shall also accept hallmarked jewellery from a consumer for verification of purity and issue report of assaying giving proper identification as marked on the article.

**5.6.2** The Assaying and Hallmarking Centre shall not accept such jewellery/artefact which bears any marking including "KDM" or fineness/caratage. No other mark shall be applied on Hallmarked jewellery / artefact. The A&H Centre shall not use hallmark on such medallions/coins which resemble with currency of any country.

**5.6.3** Jewellery / artefacts, which on analysis by XRF machine found to have a negative variance of more than 5 ppt from the declared value of fineness, shall not be accepted for further assaying. Such item(s) shall be returned to the jeweller without assaying and hallmarking.

**5.7** Since one single recognition is operated for gold and silver hallmarking, case warranting suspension of hallmarking only due to gold or silver, the same will be treated separately, for instance, in case of failures in silver only, suspension of marking shall be imposed only on silver hallmarking. Similarly, in case of failure of only gold, suspension of marking shall be imposed only on gold hallmarking. In case, the action is initiated as per clause 5.3.1 of this guidelines then the deletion of the particular variety from the scope of recognition may be considered based on the merit of the case.

## **6 RETENTION OF CORNETS / CLOSED CIRCUIT TV (CCTV) BACKUP**

The check assay gold cornets shall be retained with proper identification and traceability for last 30 Assaying. The cornet left after assaying along with hallmarked/rejected jewellery/artefacts shall be returned to the jeweller. The Centre shall ensure that the CCTV with back up facility is available for minimum 30 days storage.

## **7 TESTING OF COUNTER SAMPLE**

On communication to the A&H centre regarding the failure of sample in independent laboratory and if the A&H centre does not agree with the results obtained, the centre may contact the concerned registered jeweller from where the sample was drawn who in turn will make formal request to BO with proper justification for testing the counter sample at BIS referral lab. BO shall seek DDGR's approval for testing the counter sample for which double the testing charges shall be paid in advance by the registered jeweller.

## **8 FORMATS OF VARIOUS ASSESSMENT REPORTS, TEST REPORTS AND DISCREPANCY REPORTS**

**8.1** The following formats are enclosed which may be used during the operation of the A&H centre:

- a) Report on Recognition / Renewal Assessment of A & H Centre, Doc. HM/AHC/F 2.1 September 2018- **ANNEX A**;
- b) Report on Surveillance Assessment, Doc.HM/AHC/F 2.2 September 2018-**ANNEX B**;
- c) Report on Special Assessment, Doc. HM/AHC/F 2.3 September 2018-**ANNEX C**;
- d) Discrepancy/Variation Report Issued During Assessment of A&H Centre, Doc. HM/AHC/F 2.4 September 2018 – **ANNEX D** ; and
- e) Test Report as per IS 1418:2009 / IS 2113:2014, Doc. HM/AHC/F 2.5 September 2018 – **ANNEX E**.

## **9 PROVISION OF APPEAL**

**9.1** Any person aggrieved by an order made under section 13 of the Hallmarking regulations, 2018 may prefer an appeal to the Director General within ninety days from the date of the order:

Provided that if the appellant satisfies the Director General that he had sufficient cause for not preferring the appeal within the period so specified, the appeal may be admitted after the expiration of the said period of ninety days.

**9.2** Every appeal shall be filed in duplicate and shall be accompanied by a self attested copy of the order appealed against.

**9.3** Every appeal shall be accompanied by a fee of two thousand rupees in the form of a demand draft or pay order or E transfer, drawn in favour of the Bureau.

**9.4** The Director General may call for relevant documents from the appellant and may after such inquiry in the matter as he considers necessary and after giving an opportunity to the parties to be heard, pass such orders as he thinks fit:

Provided that the appeal shall be disposed of within a period of ninety days from the date of its filing.

**9.5** The Director General may, suo-moto, or on an application made in the form as specified by the Bureau from time to time, review and reconsider any order passed by an officer to whom the powers have been delegated by him and may confirm, modify or set aside the orders passed by such officer after the review.

**9.6** Any person aggrieved by an order passed by the Director General may prefer an appeal to the Central Government in the Ministry having administrative control of the Bureau within a period of sixty days from the date of such order.

**BUREAU OF INDIAN STANDARDS**

**Report on Recognition / Renewal Assessment of Assaying and Hallmarking Centre**

|           |   |                    |  |                                       |                   |         |
|-----------|---|--------------------|--|---------------------------------------|-------------------|---------|
| <b>1.</b> | <b>General Information</b>  |                    |  |                                       |                   |         |
|           | <b>Particulars</b>  |                    |  | <b>Observations during assessment</b> |                   |         |
| i)        | Name & address of the Assaying and Hallmarking Centre with PIN code & complete address including phone and e-mail   |                    |  |                                       |                   |         |
| ii)       | Application No.   |                    |  |                                       |                   |         |
| iii)      | Date(s) of Assessment   |                    |  |                                       |                   |         |
| iv)       | Persons present during assessment   |                    |  |                                       |                   |         |
| <b>2.</b> | <b>Implementation of IS 15820:2009 (refer clauses of the Standard as mentioned below for auditing)</b>  |                    |  |                                       |                   |         |
| i)        | Verification of Centre's Layout: (5.3 of IS 15820) ( to be verified with documents submitted by the applicant along with the application)   |                    |  |                                       |                   |         |
| ii)       | Details of Management Review meeting/Internal Quality Audit ( for Renewal)  |                    |  |                                       |                   |         |
| ii)       | Verification of availability of trained & competent manpower resources: (4.1.7, 4.1.8, 4.1.9, 4.1.10, 4.1.11, 4.1.12, 4.1.13, 5.2.2, 5.2.3, 5.2.4 & 5.2.5) (competency shall be assessed through observations of practical work, namely sample collection, weighing, XRF machine operation, fire assay) |                    |  |                                       |                   |         |
|           | <i>Append details as Annexure A in format as below:</i>   |                    |  |                                       |                   |         |
|           | Sl. No.   | Name & Designation | Qualification, Academic & Professional | Experience & Training                 | Competent Yes /No | Remarks |
|           |   |                    |  |                                       |                   |         |
|           |   |                    |  |                                       |                   |         |
|           |   |                    |  |                                       |                   |         |
|           | Signature of Auditor(s)   |                    |  |                                       |                   |         |
| iii)      | Availability of latest versions* of IS 15820, 1417, 1418, 2112, 2113 (*strike off which are not applicable)   |                    |  |                                       |                   |         |

|  |   |   |               |                                |                    |         |
|--|---|---|---------------|--------------------------------|--------------------|---------|
| iv)  | Equipment/ Instrument & Infrastructure (for sampling; assaying; Hallmarking; power, safety & security):(4.1.6, 5.3.2, 5.4.2, 5.4.3, 5.4.4, 5.6)   |   |               |                                |                    |         |
| <u>Append details as Annexure B in format as below:</u>      |   |   |               |                                |                    |         |
| Sl. No.  | IS 1418/2113 Cl. Ref  | Details of equipment/ Instrument with Nos | Make & Sl. No | Range & accuracy (least count) | Calibration status | Remarks |
|  |   |   |               |                                |                    |         |
|  |   |   |               |                                |                    |         |
|  |   |   |               |                                |                    |         |
| Signature of Auditor (s)                                     |   |   |               |                                |                    |         |
| v)   | Capability of XRF tester capable to detect Cd, Ir & Ru in Gold or Cd & Pb in Silver articles (5.4.2 & 5.4.3): Verify manufacturer/supplier certificate & report on availability of SRMs/software for Cd, Ir, Pb & Ru<br><br><u>Append copy as Annexure C.</u> |   |               |                                |                    |         |
| vi)  | Availability of water & other chemicals (Annexure A-2/Annexure B-2)   |   |               |                                |                    |         |
| vii)   | Availability of certified reference material (CRM) (5.6) (certificate from Govt of India Mint or NABL accredited Lab):<br><br><u>Append copy as Annexure D</u>  |   |               |                                |                    |         |
| viii)  | Has a Test Report proforma developed & it covers all requirements of IS 1418/2113 (5.10.1)  |   |               |                                |                    |         |
| ix)  | Whether the applicant has participated in Inter Laboratory Proficiency Testing Programme (5.9.1) :  |   |               |                                |                    |         |
| <u>Append details as Annexure E in the following format:</u> |   |   |               |                                |                    |         |
| Sl. No.  | Name of Centre & Place  |   |               | Date of Test                   | Result             |         |
|  |   |   |               |                                |                    |         |
|  |   |   |               |                                |                    |         |
| x)   | Arrangements for receiving of articles, their handling, storage, coding for testing (5.8)   |   |               |                                |                    |         |

|       |   |  |
|-------|---|--|
| xi)   | Arrangements for sampling (5.7)   |  |
| xii)  | Arrangements for sampling, assaying, storage of articles during assaying (5.4)  |  |
| xiii) | Arrangements for rejection and return of rejects (5.4.5)  |  |
| xiv)  | Hallmarking (5.4.6)<br><br>Whether access to Laser Marking machine is controlled<br><br>Whether laser marking on articles marked legible  |  |
| xv)   | Arrangement for ensuring impartiality, integrity, confidentiality, independence of judgement in relation to XRF testing, assaying and Hallmarking activities  |  |
| 3.    | <b>Testing and assaying during assessment</b>   |  |
| i)    | Draw samples randomly from stock of articles available with the applicant and get them tested.<br><br>a) XRF testing (assess capability of XRF machine for purity, detection of Cd, Ir, Ru and Pb). Check Min. 5 samples each, from two different lots;<br><br>b) Fire assay : minimum 2 samples( one each from two different lots) in duplicate) |  |
| 4.    | <b>Past Performance (applicable only in case of Renewal assessment)</b>   |  |
| i)    | Performance observed at last surveillance audit was satisfactory?   |  |
| ii)   | Any discrepancy was reported? If yes, report corrective action taken. Whether the action taken has corrected the discrepancy?   |  |
| iii)  | Has overall performance in the entire operative period been satisfactory?   |  |
| iv)   | Is any complaint pending? Report action taken on complaint.   |  |
| 5.    | Scope of Recognition (to be countersigned by Auditor(s): <u>Append as Annexure G</u>  |  |

|   |   |  |   |   |
|---|---|--|---|---|
| 6.  | Discrepancies, if any, shall be communicated through Discrepancy/Variation Report (format DOC.: HM/AHC/F 15.2 MARCH 2014) <u>Append as Annexure H</u> |  |   |   |
| 7.  | CONCLUSION & RECOMMENDATIONS  |  |   |   |
| <b>8. ANNEXURES</b> (Tick/Indicate page nos.)             |   |  |   |   |
| A   | Details of Managerial & Technical Personnel   |  | E | Details of Inter Laboratory Proficiency Testing |
| B   | List of Equipment/instrument/infrastructure   |  | F | Test Report                                     |
| C   | Manufacturer's certificate on XRF machine   |  | G | Scope of Recognition                            |
| D   | <i>Certificate on CRMs</i>  |  | H | Discrepancy/Variation Report                    |
|   |   |  |   |   |
| Signature of Auditor(s)<br>Name:<br>Designation:<br>Date: |   |  |   |   |

(Instruction: Please do not attach any document/record/sheet other than Annexure A - H)

Remarks of the reviewing Officer:

**BUREAU OF INDIAN STANDARDS**

**Report on Surveillance Assessment of Assaying and Hallmarking Centre**

|           |   |  |
|-----------|---|--|
| <b>1.</b> | <b>General</b>  |  |
| i)        | Name & address of the Assaying and Hallmarking Centre   |  |
| ii)       | BIS Recognition No. & Validity Date   |  |
| iii)      | Date of Assessment  |  |
| iv)       | Persons contacted   |  |
| v)        | Last Assessment<br><br>Whether corrective action has been taken on all observed discrepancies.<br><br>Verification of corrective actions taken on recorded discrepancies at last audit.<br><br>Discrepancy(s) is/are persisting.                                      | Date:<br><br>Yes/No<br><br>Satisfactory/not satisfactory<br><br>If yes, give details in the Discrepancy/Variation Report (format is DOC.: HM/AHC/F 2.4, Aug. 2018) |
| vi)       | Scope of Recognition - Is working within approved scope?  | Yes/No. If no, give details on Discrepancy/Variation Report.   |
| <b>2.</b> | <b>INFRASTRUCTURE, MANPOWER &amp; SYSTEMS AS PER IS 15820</b>   |  |
| i)        | Whether all test and marking equipment are in working condition., specially with respect to:<br>a) Availability of valid power supply;<br>b) Maintenance and calibration of test equipment, namely XRF machine, weighing balances, furnaces (cupellation, annealing). |  |
| ii)       | If calibration has been done by non-NABL accredited laboratory, whether the calibration certificate is traceable to national standards.   |  |
| iii)      | Whether security system, like CCTV are in operation. Check records of CCTV and verify receiving and delivery activities.  |  |

|       |   |  |
|-------|---|--|
| iv)   | Whether distilled water and other consumables available. Check halides in distilled water.  |  |
| v)    | Whether the Professional Indemnity Insurance of high value items are under valid status and these insurances have been done for the minimum amount specified in IS 15820.   |  |
| vi)   | Whether the centre has participated in inter laboratory/proficiency testing programme.  |  |
| vii)  | Whether the centre has carried out the Internal Quality Audit/ Management Review meeting  |  |
| viii) | Whether the articles accepted for assaying and hallmarking are only from BIS registered jewellers.  |  |
| ix)   | Whether similar articles, segregated lot wise with declared fineness are received from registered jewellers.  |  |
| x)    | Whether undertakings were obtained from jewellers regarding their identification mark.  |  |
| xi)   | Whether Jewellery with prohibited markings is accepted for hallmarking.   |  |
| xii)  | Whether acknowledgement / receipt with time has been issued and jewellers signature obtained.   |  |
| xiii) | Whether lot wise records of articles received from jewellers are available. Do they tally with records of assaying, hallmarking done and delivery   |  |
| xiv)  | Whether there has been any change in technical manpower or Centre's Management since previous assessment. Verify competency of manpower by actual work performance and report. Report shall include name, qualification, experience and competency. |  |
| xv)   | Whether XRF testing, fire assay and laser marking are being done by competent personnel regularly. Check records.   |  |
| xvi)  | Whether any of the terms and conditions violated.   |  |

|           |   |  |
|-----------|---|--|
| <b>3.</b> | <b>RECORDS</b>  |  |
| i)        | <p>Whether following records are maintained on regular basis?</p> <ul style="list-style-type: none"> <li>➤ Receipt/Collection Voucher</li> <li>➤ Record of Jewellers, Respective Registration &amp; Identification Marks</li> <li>➤ Record of Jeweller &amp; Lot Nos.</li> <li>➤ Sample Envelope</li> <li>➤ XRF Card</li> <li>➤ Stock Register of CRMs <ul style="list-style-type: none"> <li>● Check Gold</li> <li>● Silver</li> <li>● Copper</li> <li>● Lead</li> </ul> </li> <li>➤ Assaying Report</li> <li>➤ Assaying Sheet</li> <li>➤ Test Certificate</li> <li>➤ Marking Record Sheet</li> <li>➤ Invoice cum Delivery Challan</li> <li>➤ Jeweller's Feedback</li> </ul> |  |
| ii)       | Whether records indicate traceability of individual lot with times of its receipt and delivery with Hallmark.   |  |
| iii)      | Whether records are maintained on Hallmarking done for each registered jeweller.  |  |
| iv)       | Whether record of XRF testing is up to date.  |  |
| v)        | Whether testing had been for precious metal which was beyond scope of recognition, without seeking formal inclusion of the precious metal in their scope of recognition.  |  |
| vi)       | Whether an article of lower purity had been Hallmarked with higher purity   |  |
| vii)      | Whether Hallmarking done for non-registered jeweller  |  |
| <b>4.</b> | <b>XRF TESTING</b>  |  |
| i)        | Whether XRF testing for purity and detection of prohibitive elements are being done.  |  |
| ii)       | Whether XRF machine is checked with certified reference standards of gold/silver.   |  |
| <b>5.</b> | <b>SAMPLING FOR FIRE ASSAY</b>  |  |
| i)        | Whether sampling plan given in IS 15820 is followed and relevant records are available.   |  |

|           |   |  |
|-----------|---|--|
| ii)       | Whether collection of representative gold/silver portions from each of the sampled article is being done for fire assay.      |  |
| <b>6.</b> | <b>ASSAYING</b>   |  |
| i)        | Whether certified reference materials (CRMs) with purity certificate from Indian Govt. Mint or NABL accredited lab available. |  |
| ii)       | Whether CRMs are used in assaying and corresponding receipt, consumption records of CRMs are available.                       |  |
| iii)      | Whether specified test methods are being followed.  |  |
| iv)       | Is assay record is maintained as documented in Quality Manual.<br>Check for rough records of fire assay.                      |  |
| v)        | Whether proof assay cornets are available. Do they tally with lotwise assay record.   |  |
| vi)       | Is assay record available for hallmarked jewellery ready for delivery.  |  |
| <b>7.</b> | <b>HALLMARKING</b>  |  |
| i)        | Whether the markings are Legible.   |  |
| ii)       | Is marking done on all removable / detachable parts.  |  |
| iii)      | Whether the sequence of marking is followed.  |  |
| iv)       | Whether time of laser marking is recorded.  |  |
| <b>8.</b> | <b>DELIVERY</b>   |  |
| i)        | Whether articles ready for delivery are all Hallmarked including all removable/ detachable parts.                             |  |
| ii)       | Whether cornets of samples of each assayed lot are available and kept ready for delivery.                                     |  |
| iii)      | Whether proof of delivery indicating details of Hallmarked jewellery and time available.                                      |  |
| <b>9.</b> | <b>IDENTIFICATION &amp; TRACEABILITY</b>  |  |
| i)        | Whether identification and traceability of jewellery maintained at all stages from receipt to delivery.                       |  |
| ii)       | Whether each activity completed and records available before proceeding to next activity.                                     |  |

|            |  |   |
|------------|--|---|
| <b>10.</b> | <b>TESTING DURING ASSESSMENT</b>   |   |
| i)         | Whether random samples drawn from the stock of articles available with Hallmark during the visit and testing done. Give details of samples.<br><br>(The test report shall be in the format given at DOC.: HM/AHC/F 2.5 Aug. 2018).<br><br>Test Result: Pass/Fail |   |
| ii)        | Check corresponding test records of XRF and Fire assay and report vis-à-vis tested results   | <u>Record Tested Result</u><br><b>XRF</b><br>i. Fineness<br><br>ii. Detection of Cd, Ir & RU<br><br><b>Fire Assay</b> (ppt) |
| iii)       | Whether significant variation is observed between obtained result and available record.  |   |
| <b>11.</b> | <b>COMPLAINT(S)</b>  |   |
| i)         | Whether the complaints received , if any, have been resolved .   |   |
| <b>12</b>  | <b>Deficiencies, if any, shall be communicated through Discrepancy/Variation Report</b>  |   |
| <b>13.</b> | <b>CONCLUSION &amp; RECOMMENDATIONS</b>  |   |
|            |  |   |

|                    |  |
|--------------------|--|
| <b>Signature</b>   |  |
| <b>Name</b>        |  |
| <b>Designation</b> |  |
| <b>Date</b>        |  |

Remarks of the reviewing Officer:

**BUREAU OF INDIAN STANDARDS****Report on Special Assessment of Assaying & Hallmarking Centre**

|              |  |  |
|--------------|--|--|
| 1            | <b>General</b>   |  |
| i)           | Name & address of the Assaying and Hallmarking Centre                                      |  |
| ii)          | BIS Application/Recognition No.  |  |
| iii)         | Validity of Recognition  |  |
| iv)          | Scope of Recognition   |  |
| v)           | Date of Assessment   |  |
| 2.           | <b>Previous Assessment</b>   |  |
| i)           | Date(s) of Visit   |  |
| ii)          | Conclusion & Recommendation  |  |
| 3.           | <b>Purpose of Assessment Visit</b>   |  |
| 4.           | <b>Findings of Assessment</b>  |  |
| i)           |  |  |
| ii)          |  |  |
| iii)         |  |  |
| iv)          |  |  |
| 4.           | <b>TESTING DURING ASSESSMENT</b>   |  |
| i)           | Give details of samples drawn during the visit and testing done.<br>Test Result: Pass/Fail |  |
| 10           | <b>Discrepancies, if any, shall be communicated through Discrepancy/Variation report</b>   |  |
| 11.          | <b>CONCLUSION &amp; RECOMMENDATIONS</b>  |  |
|              |  |  |
| <b>Encl:</b> | <b>Signature</b>   |  |
|              | <b>Name:</b>   |  |
|              | <b>Designation:</b>  |  |
|              | <b>Date:</b>   |  |

**BUREAU OF INDIAN STANDARDS  
DISCREPANCY/VARIATION REPORT ISSUED DURING  
ASSESSMENT OF ASSAYING & HALLMARKING CENTRE (DVR)**

|    |   |  |
|----|---|--|
| 1. | Name and Address of Assaying & Hallmarking Centre |  |
| 2. | Application/Recognition No.                       |  |
| 3. | Date(s) of Assessment:                            |  |

|       |  |   |
|-------|--|---|
| 4.    | Clause. of IS 15820/ Terms & Conditions Violated   | Details of Discrepancy/variation observed (Applicable objective evidence shall be enclosed. Additional sheet(s) of this format, numbering each page shall be used. Each page shall be signed by Auditor(s) & Centre's representative). Plain paper shall not be used. |
| (i)   |  |   |
| (ii)  |  |   |
| (iii) |  |   |
| 5.    | Remarks/Comments by Assaying & Hallmarking Centre: |   |

|                                       |  |                      |  |
|---------------------------------------|--|----------------------|--|
| Signature of Centre's Representative: |  | Signature of Auditor |  |
| Name & Designation                    |  | Name & Designation   |  |
| Date                                  |  | Date:                |  |

**BUREAU OF INDIAN STANDARDS****TEST REPORT AS PER IS 1418:2009/IS 2113:2014 (IS shall be read with latest amendment)**

|   |   |                           |                          |      |         |    |    |
|---|---|---------------------------|--------------------------|------|---------|----|----|
| 1   | Date(s) of test   |                           |                          |      |         |    |    |
| 2   | Name of A&H Centre & Recognition No / Application No.                                   |                           |                          |      |         |    |    |
| 3   | Source of sample (Give details of lot from which sample has been drawn)                 |                           |                          |      |         |    |    |
| 4   | Description of sample with quantity and weight  |                           |                          |      |         |    |    |
| 5   | Tested/declared fineness  |                           |                          |      |         |    |    |
| 6   | XRF Tests done (2 lots of different articles with each lot having 05 articles minimum)  |                           |                          |      |         |    |    |
|   | Sl.No   | Particulars of the sample | Result                   | Cd   | Ir      | Ru | Pb |
|   | .   |                           | Fineness                 |      |         |    |    |
|   |   |                           | s                        |      |         |    |    |
| <b>Results enclosed in a separate sheet</b> |   |                           |                          |      |         |    |    |
| 7   | Assay (1 sample each from two different lots specified at Sl. No 6 above, in duplicate) |                           |                          |      |         |    |    |
|   | Sl.No   | Particulars of the sample | Fineness (ppt)           |      |         |    |    |
|   | .   |                           | No.1                     | No.2 | Average |    |    |
|   | 1   |                           |                          |      |         |    |    |
|   | 2   |                           |                          |      |         |    |    |
| 8   | Remarks   |                           |                          |      |         |    |    |
| 9   | Tested by   |                           | Witnessed by BIS Auditor |      |         |    |    |
|   |   |                           |                          |      |         |    |    |
|   | Signature   |                           | Signature                |      |         |    |    |
|   | Name & Designation  |                           | Name & Designation       |      |         |    |    |

**Note:**

1. During the initial/renewal assessment, two lots as above shall have to be assessed being the informed visit. However during renewal, hallmarked jewellery of two lots as above (hallmarked by that centre) shall be assayed being the informed visit.
2. During the surveillance assessment, the available hallmarked lot may be subjected for assaying.

**XRF RESULTS**

**LOT 1**

| SI.No. | Particulars of the sample | Result          |    |    |    |    |
|--------|---------------------------|-----------------|----|----|----|----|
|        |                           | Fineness in ppt | Cd | Ir | Pb | Ru |
| 1)     |                           |                 |    |    |    |    |
| 2)     |                           |                 |    |    |    |    |
| 3)     |                           |                 |    |    |    |    |
| 4)     |                           |                 |    |    |    |    |
| 5)     |                           |                 |    |    |    |    |

**LOT 2**

| SI.No. | Particulars of the sample | Result          |    |    |    |    |
|--------|---------------------------|-----------------|----|----|----|----|
|        |                           | Fineness in ppt | Cd | Ir | Pb | Ru |
| 1)     |                           |                 |    |    |    |    |
| 2)     |                           |                 |    |    |    |    |
| 3)     |                           |                 |    |    |    |    |
| 4)     |                           |                 |    |    |    |    |
| 5)     |                           |                 |    |    |    |    |

|                    |                    |
|--------------------|--------------------|
| Tested by          | Witnessed by       |
| Signature          | Signature          |
| Name & Designation | Name & Designation |

GOLD HALLMARKING FACILITY: QUESTIONNAIRE

JOINT COMMITTEE CONSTITUTED AS PER THE HONORABLE NATIONAL  
GREEN TRIBUNAL (PB), DELHI ORDER DATED 5/8/2019 IN THE MATTER OF  
OA 568 /2019

| <b>S.No.</b> | <b>PARTICULARS</b>   | <b>DETAILS</b>                                  |
|--------------|--|---|
| 1            | Name and address of the facility and location                                  |   |
| 2            | Contact numbers  |   |
| 3            | Phone/ fax numbers   |   |
| 4            | Email/ website address   |   |
| 5            | Contact person and designation   |   |
| 6            | BIS Recognition details and validity   |   |
| 7            | Details of trade license from local bodies.                                    |   |
| 8            | Details of consent for establishment issued by Kerala Pollution Control Board. |   |
| 9            | Details of consent for operation issued by Kerala Pollution Control Board.     |   |
| 10           | Category of unit as per the consent  |   |
| 11           | Details of authorization under hazardous waste management rule.                |   |
| 12           | Capital investment (Rs)  |   |
| 13           | Number of staffs   |   |
| <b>14</b>    | <b><i>Details of equipment</i></b>   | <b><i>(Indicate number of items)</i></b>        |
|              | Fire assay system  |   |
|              | Portable XRF/ Carrot meter   |   |
|              | Fume hoods   |   |
|              | DM water kit   |   |
|              | HDD XRF  |   |
|              | ICP-OES  |   |
|              | SPARK-OES  |   |
|              | AAS  |   |
| <b>15</b>    | <b><i>Chemicals used</i></b>   | <b><i>Indicate quantity used per sample</i></b> |
|              | Nitric acid  |   |
|              | Lead foil  |   |
|              | Copper   |   |
|              | Silver   |   |
|              | Magnesium cupels   |   |
|              | Others   |   |

| <b>16</b> | <b><i>Waste disposal</i></b>   | <b><i>Indicate quantity &amp; mode of disposal</i></b> |
|-----------|--|--|
|           | Spent acid   |  |
|           | Lead foils   |  |
|           | Used cupels  |  |
|           | Scrubber liquid  |  |
|           | Others   |  |
| <b>17</b> | <b>Pollution control devices</b>   |  |
|           | Fume extraction system   |  |
|           | Alkali/ wet scrubber   |  |
|           | Spent acid treatment system  |  |
|           | Others   |  |
| <b>18</b> | <b>Details of ETP if any</b>   |  |
| <b>19</b> | <b>Details of personal protective equipment (PPE) used by staff</b>                              |  |
| <b>20</b> | <b>Details of scrubber stack</b>   |  |
| <b>21</b> | <b>Details of agreement with KEIL for waste disposal.</b>  |  |
| <b>22</b> | <b>Details of agreement/ arrangement with scrap dealers/ recyclers.</b>                          |  |
| <b>23</b> | <b>Monthly electricity charges (Attach the copy of electricity bills for last three months).</b> |  |