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Updated October 2017

**The Good Delivery Rules for Gold and
Silver Bars**

**Specifications for Good Delivery Bars and Application
Procedures for Listing**

October 2017



THE GOOD DELIVERY ECO SYSTEM

- **GOOD DELIVERY RULES:**
 1. REQUIREMENT FOR LISTING
 2. THE RULES
 3. PHYSICAL COMMITTEE (industry experts responsible for monitoring, developing, and protecting the Good Delivery Refiners list, ensuring standards are maintained, improvement & market transparency).
 4. REFEREES (responsible for technical assessment of applicants, proactive monitoring, provision of technical advice).
 5. MANAGING COMMITTEE responsible for administering and managing the Good Delivery Eco System
- **GOOD DELIVERY LIST**
- **RESPONSIBLE SOURCING**
- **REFERENCE MATERIALS**
- **PROACTIVE MONITORING** (mandatory participation)
- **PROFICIENCY TESTING** (recommended participation)
- **INFORMATION DISSEMINATING**



PROPOSED STRUCTURE OF ABC

1. BOARD, comprising of:

- Non-executive Chairman, preferably an individual with in-depth knowledge of industry
- Chief Executive, responsible for all functional activities
- An individual competent to function as General Legal Counsel
- Two members from refiners of repute
- Two members from Banks / Nominated Agencies dealing in gold / silver
- One member from a Commodity Exchange
- Two members from Trade Bodies dealing in gold / silver

2. Sub-Committees:

- **Finance Committee**, responsible for monitoring ABC's finances, preparing the Annual Budget and examining the draft Accounts
- **Physical Committee**, responsible for monitoring, developing and protecting the Good Delivery List
- **Public Affairs Committee**, responsible for organizing events, including the Annual Conference, as well as marketing material and publications of ABC
- **Membership Committee**, responsible for ensuring that the quality Association's Membership is maintained, as well as to encourage all suitably qualified companies involved in the bullion business to join ABC as Members or Associates.
- **Regulatory Affairs Committee**, responsible for monitoring and disseminating information concerning national & international regulation affecting the bullion market. The RAC also suggests and outlines possible actions that ABC may take in response to proposed or upcoming regulation.



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ASSOCIATION LTD.
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Good Delivery Rules

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Good Delivery Rules

1. Introduction

The list of acceptable refiners of gold and silver bars has been developed and is maintained by (ABC) in order to facilitate the distribution and acceptability on technical grounds of standard bars produced by those refiners:

- (a) who meet the criteria for inclusion in the list; and
- (b) whose bars have passed the testing procedures laid down by ABC.

Standard bars are bars of one kilo for gold and approximately 15 kilos for silver. Bars are listed at the discretion of the Management Committee of the ABC, which reserves the right to make any investigations that it deems appropriate into an applicant for listing.

An entry on the List relates to one refinery at one specific location. Separate applications are required if an applicant wishes to register bars produced in refineries situated at different locations.

If a company on the List wishes to change the location of its refinery or the dimensions of, or registered marks on, its standard bars, then it must inform the ABC in advance, providing all appropriate details. Any change in a company's standard bars will trigger a requirement for the new bars to comply fully with the specifications on markings and dimensions described in sections 7 to 9.

If a company on the List is subject to a substantive change in its ownership or the technology used in refining, it must inform the ABC accordingly. The ABC reserves the right in such circumstances to ask the company to submit a new application.

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Good Delivery Rules

2. Criteria

The ABC is unlikely to give favourable consideration to an application for listing unless the following criteria are met:

- (a) the applicant has been in existence for at least **four** years and has been involved in refining the metal for which it is applying for at least three years prior to the application;
- (b) the applicant has an established annual refined production (which need not be in the form of standard bars) of at least **3** tonnes in the case of gold and **15** tonnes in the case of silver.
- (c) Within a period not exceeding two years from date of listing, refiner must be able to demonstrate an annual production of at least 5 tonnes in the case of gold and 25 tonnes in the case of silver during this two-year period to maintain its status. “Failure to successfully achieve this will automatically result in removal from the Good Delivery List”.
- (d) the applicant has a tangible net worth equivalent to at least Rs. **10 crore** or such figure as the ABC may from time to time determine;
- (e) the applicant’s ownership, financial standing and reputation would allow it to satisfy the KYC (Know Your Customer) tests practiced in India; and
- (f) in the case of gold applications, applicant must implement the *ABC Responsible Gold Guidance* and pass an audit covering a 12 months period prior to becoming a member of the Good Delivery List. All GDL Applicants must use an auditor on ABC's Approved Service Provider List.

Note: The following one-time exception will apply:

- i) For the initial period of year commencing from date of notification of these Rules, Applicants who have not undergone an RGC audit may apply for Good Delivery Listing by giving an undertaking that they have commenced implementing ABC Responsible Gold Guidance and will subject themselves to an audit by an auditor on ABC’s Approved Service provider List no later than twelve months from the date of applying for Good Delivery Listing.
- ii) ABC will consider such applications as a one-time exception; in the event, after due scrutiny and process, the application is approved, Applicant will be placed on the Good Delivery List with a remark that “Failure to successfully complete the ABC RCG independent audit no later than (twelve months following month of listing) will automatically result in removal from the Good Delivery List”.

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- iii) An applicant whose name has been removed from the Good Delivery List for any reason whatsoever may apply for re-listing after an interval of twenty-four months, wherein the entire application will be treated afresh.

The ABC reserves the right to reject any application and is under no obligation to disclose the reason(s) for its decision.

The ABC believes that the long-term viability of a refinery as well as its ability to meet the required standards of the Good Delivery List depend on it having a certain volume of production as well as a minimum tangible net worth. If a refinery suffers a substantial and sustained fall in refined production or tangible net worth relative to the quantities mentioned in paragraphs (b) and (c) above, it must inform ABC of the reasons for the fall and, if appropriate, the likely future development.

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3. Procedure for Submission of an Application

An applicant company wishing to apply for Good Delivery status for its refinery must submit an application to the ABC Executive using the application form given in Annex A.

Applicants for gold accreditation must implement the ABC Responsible Gold Guidance (see Section 12) and pass an audit prior to accreditation. Applicants can submit an application to initiate the process in advance of passing such an audit, but full accreditation will not be granted until a satisfactory Responsible Gold audit report has been provided to the ABC.

The application must be accompanied by a number of documents (which are described in detail in Annex A). These should give a clear description of the ownership, operating history and financial position of the refinery, together with details of the potential Good Delivery bars produced. The documents include a letter attesting to the applicant's standing from its lead Bank that is acquainted with the applicant's business and activities.

These documents are required firstly, to provide a general description of the operations at the refinery and the standing of the applicant company; and secondly, to ascertain the ownership structure and in particular to meet the compliance requirements for the setting up of a customer account for the applicant to facilitate the subsequent steps in the assaying of samples and the provision of bars for testing.

The Application Form also includes declarations relating to the applicant's willingness to (a) respond to any complaints from the market about the quality of its bars and (b) have the quality of its refining tested from time to time by the ABC (by means of the Proactive Monitoring system, which is described in Annex I).

Documents must be provided in English. Where copies of official

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documents are to be provided, the ABC requires such documents to be notarised by a public official.

The ABC Good Delivery Executive will treat the production data and the contents of the video mentioned in Annex A as confidential. This information will be examined by the ABC Good Delivery Executive and its technical consultant and, if necessary, by members of the Physical Committee.

See attached Annex J for an example of what the ABC considers to be an acceptable technical line drawing of a bar and is required to be submitted with an application. Annex A describes the format of the drawing and also of the photographs of the bars that should be provided.

It should be noted that the application fee of Rs. 200,000 per metal + tax at the applicable rate, must be paid at the time of the application, either in the form of an accompanying cheque in favour of ABC or by direct bank transfer to the ABC bank account including all bank charges. Details of the ABC's bank account are given in Annex A. The ABC will issue a corresponding receipt when the payment has been received (or if required, an invoice in advance). The application fee is non-refundable in the event that an application is unsuccessful, irrespective of the stage reached. Details of the other charges involved are given in Section 6.

The ABC Good Delivery Executive will acknowledge receipt of the application. The ABC Good Delivery Executive will normally consult members of the Physical Committee concerning the application and may, on matters relating to the tangible net worth of the applicant, consult the ABC's Good Delivery Managing Committee.

The ABC reserves the right, where this is considered necessary, to arrange a short inspection visit before accepting an application for technical appraisal. The costs of the inspection visit, including business class flights, local subsistence and travel, must be paid for by the applicant.

If, having considered all the information submitted, the Physical Committee agrees that the application meets all the relevant criteria and should therefore be processed further, the applicant will be so advised and will be required to undertake the following procedures for:

- (a) the examination of its assaying capability, and
- (b) the examination and testing of its bars.

Throughout the application process, the ABC will act as the intermediary between the applicant and the referees (see list in Annex C) that will be used in the technical assessment stages. The ABC will also keep accounts in respect of the charges for the two stages of the technical assessment and the bars that the applicant supplies for testing and any other costs involved. The applicant will not be informed of the identities of the referees carrying out the technical assessment and the referees will only be informed of the identity of the applicant when the application has been successfully completed and the applicant advised of the result.

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4. Technical Assessment Procedure

4.1 Testing the applicant's in-house assaying capability

The first stage of the testing procedure involves the applicant assaying reference samples provided by the ABC.

The ABC's panel of referees has manufactured the reference samples, which are crosschecked and assayed by at least two other referees. The reference assay values are calculated by the ABC based on the assays performed on the samples by at least three of the referees.

The reference samples will comprise

- for gold, twelve samples of approximately 5 grams each within the approximate range 995.0 to 999.9 parts per thousand and
- for silver, six samples of approximately 30 grams each within the approximate range 999.0 to 999.9 parts per thousand.

To initiate the testing phase, the ABC will request the applicant to pay the Stage 1 fee shown in the Table in section 6. This covers the costs of the reference samples, including the value of the contained gold and/or silver and the ABC's administrative costs. However, the costs incurred

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by the ABC of shipping the samples to the applicant will be charged to the applicant in addition to the fees shown. In order to ensure safe delivery of the samples to the applicant's refinery, the ABC will, in general, use the services of a security transport company to ship the samples.

When the ABC has received the payment for the Stage 1 fee, the reference samples, each identified by a code number, will be sent to the applicant by ABC.

The applicant is required to assay the samples and send a report of its results by email and fax to the Chief Executive of the ABC Good Delivery Committee. Once the refinery has received the samples, the report must be submitted:

- within ten local business days in the case of gold; and
- within five local business days in the case of silver.

Failure to submit the report within this timeframe may result in the application being rejected with the forfeiture of the fees paid.

The assay report should list the reference numbers and show the assay determined for each sample to five significant figures and the applicant's interpretation of the assays to four significant figures, according to the rules shown below.

For the purpose of rounding five-figure assays to four figures, the following principle should be observed (except in the three cases shown below). If the fifth significant figure is a six or greater, then the fourth significant figure should be rounded up by one.

- The first exception is that assays of 999.86 to 999.89 should not be rounded up to 999.9 and should be reported as 999.8.
- Similarly assays of 994.96 to 994.99 should not be rounded up to 995.0 and should be reported as 994.9. Thus bars within this range would be below the minimum assay for acceptability.
- Finally, an assay of 999.96 or above should not be rounded up and should be reported as 999.9.

The assay report should also state which method of assaying has been used. It should be noted that the ABC's referees normally use direct determinations of the assay contents of their gold samples (i.e. corrected fire assay).

In the case of the assaying of silver, where spectrographic methods are generally used, oxygen and nitrogen should be ignored when deducting the sum of the impurities from 1000 (in other words, these gases should be treated as silver). Refiners who use spectrographic methods to determine the assay value should submit a full elemental analysis using an Excel spreadsheet for each sample. Annex M shows the residual elements that ABC referees will look for in carrying out spectrographic analyses of gold and silver.

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All applicants, including those whose production is at the 999.9 level, must be able to demonstrate their capability to assay across the range permitted for Good Delivery bars, i.e. approximately 995.0 to 999.9 for gold and 999.0 to 999.9 for silver.

In order to pass the assay test on the samples, the criteria shown below should be met. These are shown in terms of fineness (parts per thousand).

- (a) assays of 999.5 and above should agree to ± 0.05 ; for example, the assay determined on a sample with a reference value of 999.84 would have to fall within the range 999.79 to 999.89;
- (b) assays of less than 999.5 should agree within ± 0.15 ; for example, the assay determined on a sample with a reference value of 996.73 would have to fall within the range 996.58 to 996.88.

However, it will be deemed acceptable if there are not more than a total of three divergences in the case of gold and two divergences in the case of silver from paragraphs (a) and (b) above, provided that all such divergences are no greater than ± 0.25 and that there is no significant bias in the set of results. The final decision by the ABC Technical Committee on whether an applicant has passed the assay

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test will be based on an examination of all assay results. In marginal cases, the Technical Committee may request to see the detailed results of all the trials carried out.

When determining the assay of sample bars using spectrographic methods, the applicant is responsible for identifying all impurity elements contained therein, which will determine the final assay. The Technical Committee does not prescribe detailed procedures or criteria for assaying bars using spectrographic methods but Annex M lists the elements that ABC Referees will typically determine.

4.2 Submission and testing of sample bars

If the test of the applicant's assaying ability is satisfactory, the applicant will be requested by the ABC to pay the Stage 2 charges shown in section 6 and then to submit seven gold and/or silver bars to the ABC's nominated vault. These bars must conform generally to the specifications and standards laid down by the ABC Good Delivery Committee (see Sections 7 to 9 below).

Weight lists accompanying bars must be provided in a machine-readable electronic form, such as an Excel spreadsheet. Bar weights must be shown on the weight list, correct to two decimal points.

There are special requirements for bars submitted for testing

- (a) One of the bars should be stamped with the identifying stamp of the refinery and other marks as listed in sections 8 and 9 below.
- (b) The remaining six bars should only be stamped with an identifying code provided by the ABC (such as ABC14-1-) plus a number from 1 to 10. The ABC will supply the code to the applicant.
- (c) The sample bars submitted by the applicant for examination and testing purposes should be within the weight range of $-0 / +0.5$ gm for gold and 14 to 16 kg for silver.
- (d) Annex H shows the format for the different arrangement of the weight lists accompanying the seven bars submitted by an applicant for accreditation. The weight list should show:
 - for **gold**, the bar number, brand, gross weight, fineness (to five significant figures and the equivalent rounded to four significant figures) and fine weight in gms; and,
 - for **silver**, the bar number, brand, gross weight, and fineness (to five significant figures and the equivalent rounded to four significant figures)

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Usually the bars must be received by the ABC's nominated vault within four weeks of the applicant being requested to submit them. Failure to submit the bars within this timeframe may, in the absence of specific agreement by the ABC, result in an application being terminated with the forfeiture of the fees paid.

The applicant is required to insure the bars on a vault-to-vault basis. All transportation and insurance costs are payable by the applicant.

The ABC's nominated vault will check-weigh the sample bars against the accompanying weight list. A representative of the ABC will check the bars against the photograph and scale technical drawing submitted with the application (see Annex A) and, together with two representatives of the vault, will then carry out an initial visual examination of the bars.

If found to be satisfactory, three of the unmarked sample bars will then be sent for testing to each of two referees appointed by the ABC.

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The two referees will independently examine the bars. The first phase of testing involves visual inspection, weighing and assaying of cut and / or drill samples taken from each of the bars. The referees will then perform full melt assays on two of the three bars, holding one bar each in reserve.

In addition to these tests, the referees will carry out a full spectrographic analysis on a cut sample of the remaining un-melted bar, in order to determine the levels of impurities and thence to give an opinion on whether any of these are present in amounts that would be considered deleterious. The ABC seeks to ensure that impurities are within appropriate limits and the referees' reports will include their evaluation of the impurities found in this regard.

5. Results

An applicant must satisfy the Physical Committee that it has met all the above criteria and testing requirements before it can be included in the list of acceptable refiners.

When the Physical Committee has approved an application for listing, the ABC Executive will inform the applicant. The Executive will arrange for the applicant's details to be included on the Good Delivery List and will prepare and send to the applicant a certificate marking its acceptance onto the List.

6. Charges and Accounting

6.1 Application Fees

Fees are levied by the ABC for a Good Delivery application to cover the costs of the ABC and the work of the referees. The ABC may review such fees at any time but not retrospectively once an application has commenced.

The total fee, excluding VAT, amounts to Rs. 10,00,000 for gold and Rs. 7,50,000 for silver. The fees are payable in three tranches:

Fees Payable by Good Delivery Applicants (in Rs. subject to VAT where indicated)

Fees (all fees are payable to the ABC)	Gold	Silver
On Application (plus VAT at the applicable rate)	150,000	75,000
Stage 1: Assay Test	3,00,000	1,50,000
Stage 2: Testing of Applicant's bars (not normally subject to VAT)	3,00,000	1,50,000
Total	7,50,000	3,75,000

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The above-mentioned fees are payable in advance at each stage. The fees shown for Stage 1 cover the cost of the samples (including their metal content) provided to the applicant but not the cost of shipping incurred by the ABC (which will be charged in addition to the fees shown).

In the event of an applicant not progressing to the next stage, for whatever reason, no part of the fees already paid is refundable. But in such situations, no fees are payable for the next stage.

Once the tests have been completed, the after-melting weight and fine content for gold or content for silver of the sample bars supplied by the applicant will be notified to the applicant by the ABC.

By separate arrangement with the ABC, the gold or silver may be sold and the proceeds credited to the applicant.

Concerning the 7th bar, which will have been retained in the nominated vault, it should be noted that this is not considered to be GD even if the applicant has been accredited. Similar arrangements for selling the metal content may be made or alternatively, the applicant can arrange to collect it from the vault.

6.2 Annual Maintenance Fee

In order to maintain its accreditation, each refiner on the Good Delivery List must pay an annual maintenance fee to the ABC (of Rs. 600,000 per metal or Rs. 9,00,000 if a refiner is listed for both gold and silver).

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7. General Specifications for Good Delivery Bars

The ABC's recommended specifications for Good Delivery bars are shown below. Detailed requirements for gold and silver Good Delivery Bars are given in the Sections 8 and 9 respectively.

The ABC considers that the appearance of bars is important, firstly because of the technical reasons described below and secondly because the maintenance of high standards of surface finish indicates a good level of quality control in general. A poor bar appearance might, on the other hand, suggest that standards of refining or assaying are less than desired. The ABC facilitates a consistent approach to such decision-making by arranging regular meetings and by providing guidance to distinguish between, on the one hand, minor imperfections, and on the other, serious defects which require the bar to be rejected.

7.1 Changes to Bar Dimensions or Marks

A refiner intending to change either the marks on the bars or the bar dimensions must give the ABC at least one month's notice of the change and provide a technical drawing of the proposed new bar and the date on which it is intended to be introduced. When the drawing has been approved and the bar has gone into production, the refiner must send to the ABC electronic images of the new bar in plan and perspective views. See Annex A for a description of the required drawing and photographs.

However, if a refiner wishes to change either the dimensions or marks on the bars, it must ensure that the new bars have dimensions within the ranges specified. If a refiner is only intending to change the marks without changing the dimensions, the ABC will allow it a grace period of 6 months so that existing moulds can be used while new moulds are obtained.

7.2 Quality Control

If a recipient vault is of the opinion that the bars do not conform to the above requirements, the recipient vault may ask the ABC to appoint independent inspectors from any of its Referees to examine the bars and express an opinion as to whether the bars are acceptable for Good Delivery purposes. For the avoidance of doubt, any proposed recipient of bars has, irrespective of any view expressed by an inspector on the condition of a bar, the absolute right to refuse to accept delivery of a bar if its vault manager considers that the bar does not meet the Good Delivery standards as set out in these Rules.

7.3 Non-Good Delivery Bars

If bars are produced in the general form of Good Delivery bars, but due to their intended use (for example bars produced for and delivered directly to an industrial customer for use as a raw material) they do not meet the Good Delivery specifications (for example, inferior appearance or sub-standard bar marks) then the Good Delivery refiner must stamp the bars NGD (meaning Non Good Delivery) in close proximity to the ABC-approved manufacturer's mark.

7.4 General Description of Good Delivery Bars

Weighing: Bars should be weighed in accordance with the procedure laid down by the ABC (see Annex G "Weighing, Packing and Delivery Procedures for Gold and Silver Bars")

Casting Method: Bars must be produced in graphite or cast iron moulds, either by the conventional method of pouring molten metal into them or alternatively, by melting grain in an induction tunnel system. Silver bars may also be produced using continuous casting.

Shape: Silver Bars must be ingot-shaped (i.e., having a trapezoidal cross section, both along the length and across the width of the bar) with sufficient undercut to facilitate handling but without resulting in the width of the bottom surface being so narrow that the bar cannot be safely stacked. Bars cast in open moulds should be produced at a single pouring. Bars must be easy and safe to handle. Proper stacking and handling of a bar will be taken into consideration during bar inspections. It is important that the edges of the bars must not be sharp, so as to avoid the risk of injury during handling.

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Undercut: The undercut refers to the degree of slope on the side and ends of the bar and is represented by the angle of deviation from the vertical of the side and end surfaces.

Appearance: Bars must be of good appearance. Faults that must be avoided, especially on the top surface of a bar, are irregularities such as surface cavities, cracks, holes or blisters (debris and water can accumulate in such irregularities which can affect the weight of the bar and, accumulated water can cause an explosion when the bars are melted) and excessive shrinkage (i.e. the concavity of the top face of the bar and any concentric cooling rings must not be such that it makes it difficult to either apply or read the bar marks or in the case of concavity bars become unstable when stacked on top of each other). The sides and bottom (smaller) surface should be flat and reasonably smooth (which does not imply the need for a mirror-like finish) and free from cavities, lumps and excessive layering. Layering is considered to be excessive if it can result in dust or dirt being trapped and thus affecting the recorded weight of a bar. Hammering is not acceptable, as are any attempts to conceal defects i.e. burnishing. In some cases the use of a ball peen hammer to flatten a sharp protrusion may be considered acceptable. In the case of silver bars, it is recognised that a small degree of hammering or other surface treatment is sometimes required but such hammering should not affect the markings or shape of the bar.

Marks: Gold bars must be marked on the larger of the two main surfaces (the cast surface at the top of the mould) using conventional (pressure) stamping or dot matrix (pneumatic punching) provided always that if pneumatic punching is used, the marks must be no less clear and at least as durable as if conventional stamping had been used. Silver bars may alternatively be marked on the end of the bar if marked using a dot matrix method so that the marks can be read from the top edge downwards (see attached Annex K). Refiners intending to change to dot matrix marking should notify the ABC and send a new drawing and photo in advance together with the date from which the new marking method will be used.

For refiners whose bar dimensions are currently not compliant with the ABC's recommended sizes, changing from pressure to dot-matrix marking will trigger a requirement for bars to be brought within the recommended dimension range. Refiners must apply a consistent font to all digits of the assay mark.

The marks should include the stamp of the refiner (which, if necessary for clear identification, should include its location), the assay mark (where used), the fineness, the serial number (which must not comprise of more than eleven digits or characters) and the year of manufacture as a four digit number unless incorporated as the first four digits in the bar number. If bar numbers are to be reused each year, then it is strongly recommended that the year of production is shown as the first four digits of the bar number although a separate four digit year stamp may be used in addition. If bar numbers are not to be recycled each year then the year of production must be shown as a separate four digit number. Marks should be clear and the height of characters used should be a minimum of 12 mm.

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Weight Stamps: The unit of weight must be stamped on each bar.

Specifications for a Good Delivery one kilo Gold Bar

- Weight:** weight: 1,000 -0/+0.5 gms.
- Dimensions:** the permitted dimensional ranges for a Good Delivery gold bar are as follows:
Length (Top): 115.50 mm +/-1 mm
Width (Top): 52.5 mm +/- 1 mm
Height: 9.20 mm +/- 0.5 mm
- Edges radius: as specified in the drawing attached
- Fineness:** the minimum acceptable fineness is 995.0 parts per thousand fine gold.
- Marks:** Serial number (see additional comments in section 7 above)
Assay stamp of refiner
Fineness (to four significant figures)
The text “ 1 kilo gold” stamped prominently on the top face of the bar

8. Specifications for a Good Delivery Silver Bar

- Weight:** minimum gross weight: 14 kilos maximum gross weight: 16 kilos
- The gross weight of a bar should be expressed in kilos in multiples of 1 gm, rounded down to the nearest 1 gm.
- Dimensions:** the permitted dimensional ranges for a Good Delivery silver bar are as follows:
Length (Top): 310 mm +/- 50 mm Undercut: 5° to 15°
Width (Top): 120mm +/- 20 mm Undercut: 5° to 15°
Height: 44 mm +/- 50 mm
- Fineness:** the minimum acceptable fineness is 999.0 parts per thousand silver.
- Marks:** Serial number (see additional comments in section 7 above)
Assay stamp of refiner
Fineness, expressed to either three or four significant figures
Year of manufacture (see additional comments in section 7 above)

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9. Proactive Monitoring

The ABC operates a system of monitoring the quality of the production and assaying ability of refiners on the Good Delivery List. This involves refiners providing on request a dip sample from a normal production melt which will be check-assayed by one of the ABC's referees.

Normally refiners will be subject to full technical monitoring as described above once every year. Annex I - "Proactive Monitoring Procedures and Criteria" describes the operation of the system in detail.

10. Retesting of Bars

The ABC reserves the right when appropriate to ask refiners on the Good Delivery List to submit bars for testing if, in its opinion, a refiner is unable to demonstrate the required competence in assaying (as revealed by the proactive monitoring system) or if the appearance of a refiner's bars gives cause for concern.

10.1 Testing Method

The methods of inspection and testing specified in section 4.2 of these Rules will generally be followed.

10.2 Charges

The refiner will be required to pay for the cost of insurance and shipping the bars to the ABC referee vault. Should the vault inspection indicate the need for further testing of the bars by the ABC's referees, then an additional charge of up to Rs. 80,000 plus VAT as applicable will be levied to cover the testing of the bars by the referees.

11. ABC Responsible Gold Guidance

The ABC requires that all ABC Good Delivery Gold Refiners comply with the ABC Responsible Gold Guidance (RGG), which aims to ensure that the Indian market is free from metal that has financed conflict or been used for money laundering or terrorist financing.

Potential applications should review the ABC RGG for the detailed process. It should be understood that the audits under the ABC RGG should be:

- carried out by an independent third party auditor who is also on the ABC Recommended Service provider list; and
- submitted prior to accreditation and then thereafter the audit shall be carried out every year and the report submitted to the ABC, within three months of the close of the applicant's financial year.

12. Further Information

Any questions or requests for further information about the Good Delivery List, specifications or application procedures should be addressed to the Chief Executive of the ABC.

Annex A – Application Form for Good Delivery Listing

GOLD/SILVER †

Name of Refinery.....

Address of Refinery

.....
.....
.....

Name of Company and address of Head Office if different from those of Refinery

.....
.....
.....
.....

Contact name, title and address to which correspondence should be addressed

.....
.....
.....
.....

Telephone No: Fax No:

E-mail:.....

† Delete as applicable.

Please complete a separate Application Form for gold and silver if both metals are applied for.

See overleaf for documents and payment to be enclosed.

Documents and other information to be enclosed

Unless otherwise specified, the documents must be in English.

1. A letter of support from the applicant's major, well-known, commercial bank.
2. Certificate of Incorporation.
3. Latest published annual report and audited financial statements for the most recently available annual accounting period.
4. Description of the structure of the Company's ownership, including:
 - List of five principal shareholders, with their addresses and shareholdings
 - List of all directors
5. History and description of the company's business and refining operations, including:
 - exact location of refining plant
 - history of refining operations at the plant
 - a general description of the main sources of feedstock
 - a brief description of the main refining processes used
 - a general description of the main customers for the refinery's main products
 - a description of the methods and equipment used for assaying gold and/or silver
 - BIS certification of the refinery
6. Figures for the last three years' annual production of refined¹* gold/silver in tonnes.
7. Estimate of next two years' annual production of refined* gold/silver in tonnes.
8. Illustrations of the gold/silver Good Delivery bar as follows;
 - An electronic high quality high resolution coloured digital image in the form of a jpg file (pixel dimensions should be in the order of 2700 by 1800) showing the detailed bar marks on the face of the bar, the bar marks should be clear and in focus
 - An electronic high quality high resolution coloured digital image in the form of a jpg file (pixel dimensions should be in the order of 2700 by 1800) showing the bar in three dimensional view with the bottom surface of the bar uppermost
 - Three high quality hard copies of each of the above (**not copies reproduced on ordinary quality paper using an inkjet printer**) or alternatively three high quality colour photographs (size 18 cm x 12 cm) showing the face of the bar and three dimensional view as described above
 - a fully dimensioned, black and white scale technical drawing on A4 size paper and in PDF format. This should show the location of the marks on the main surface and a detailed view of the marks. The drawing should include the height of the characters used for the bar number and assay marks. The drawing

¹ * 'Refined' refers to metal which has gone through a refining process, such as electrolysis, Miller Process or Aqua Regia refining.

must also include the radius measurements for any rounded corners or edges. Where bottom edges have rounded edges, the width and length measurements must be measured to the theoretical sharp edges. (see Annex J as an example)

- a detailed description of the applicant's logo appearing on the bars explaining what the individual characters and / or symbols represent
 - an explanation of what the individual digits within the bar number represent.
9. Short DVD film (of approximately 10 minutes) showing the premises, equipment and refining operations used in the refinery. This should show in detail the process of casting bars (including the pouring of the metal, the removal of the bar, a view of the top surface of the as-cast bar and any subsequent surface treatment). The footage of the assaying laboratory should show the equipment used for both instrumental and manual methods.
10. Cheque for Rs. 1,50,000 plus tax (as applicable) in favour of ABC or confirmation of the payment direct to the ABC's bank account.
11. For Gold Applicants, a letter on company headed paper confirming that the applicant has read and understood the content of the ABC's Responsible Gold Guidance and that it will arrange for a third party audit of its compliance prior to accreditation being granted.

DECLARATION

(To be signed by a Director/Authorised Officer of the Applicant, as appropriate.)

To: The ABC

We confirm that we have read the ABC paper on The Rules for Good Delivery Gold and Silver Bars which sets out the specifications and procedures applied by the ABC for the examination of the assaying capability and the testing of bars of Applicants for Good Delivery status. We also agree that this procedure should be applied to assess our melting and assaying capability and that, in order to be included by the ABC in the list of Acceptable Refiners, we must satisfy the Management Committee of the ABC that we have met the criteria and requirements of the tests laid down in the Procedures.

We agree to pay the initial application fee of the ABC with this application, and those fees subsequently payable during the course of the testing procedures whether or not our application is successful.

We agree that if accepted onto the Good Delivery List, we will respond appropriately to any complaints from the market about the quality of our bars.

We agree that if accepted onto the Good Delivery List, we will submit to regular proactive monitoring.

Please declare (a) or (b)

- (a) We are not a Member or Associate of the ABC and agree to the payment of an annual monitoring fee in respect of continuing membership of the Good Delivery List
- (b) As a Member/Associate of the ABC, we understand that the annual Good Delivery List monitoring fee will be included as part of the annual charge for Membership/Associateship

For and on behalf of:

.....

(Name of Applicant Company)

Signature of Director/Authorised Officer.....

Name in BLOCK letters

Date.....

This application, together with all supporting documents, should be sent to:

The ABC (full address)

ABC Bank Account Details:

Annex B – ABC Vaults

The term “ABC Vault” refers to a Member of the ABC, which also provides bullion vaulting and clearing services to third parties. It should be noted that the ABC does not approve physical vaults which may be used by the market.

Annex F lists the companies which have been approved as weighers by the ABC.

Inclusion in this list does not constitute or imply any representation or warranty by the ABC as to creditworthiness or as to the services or goods supplied or quality or compliance with any specification relating thereto. No liability for direct or consequential loss, howsoever caused, whether by negligence or otherwise, whether by use of this list or reliance thereon, is accepted by the ABC.

- 1. Brinks operated vaults.**
- 2. Sequel operated vaults**
- 3. Any others as notified from time to time**

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Annex C – Approved Good Delivery Referees

The following companies have been appointed as Referees to the ABC Good Delivery system.

Inclusion in this list does not constitute or imply any representation or warranty by the ABC as to creditworthiness or as to the services or goods supplied or quality or compliance with any specification relating thereto. No liability for direct or consequential loss, howsoever caused, whether by negligence or otherwise, whether by use of this list or reliance thereon, is accepted by the ABC.

Company

1. **India Government Mint, Mumbai**
2. **BIS referral lab, Chennai**
3. **MMTC-PAMP India private limited,
Haryana**
4. **Hindustan Platinum Ltd, Mumbai**

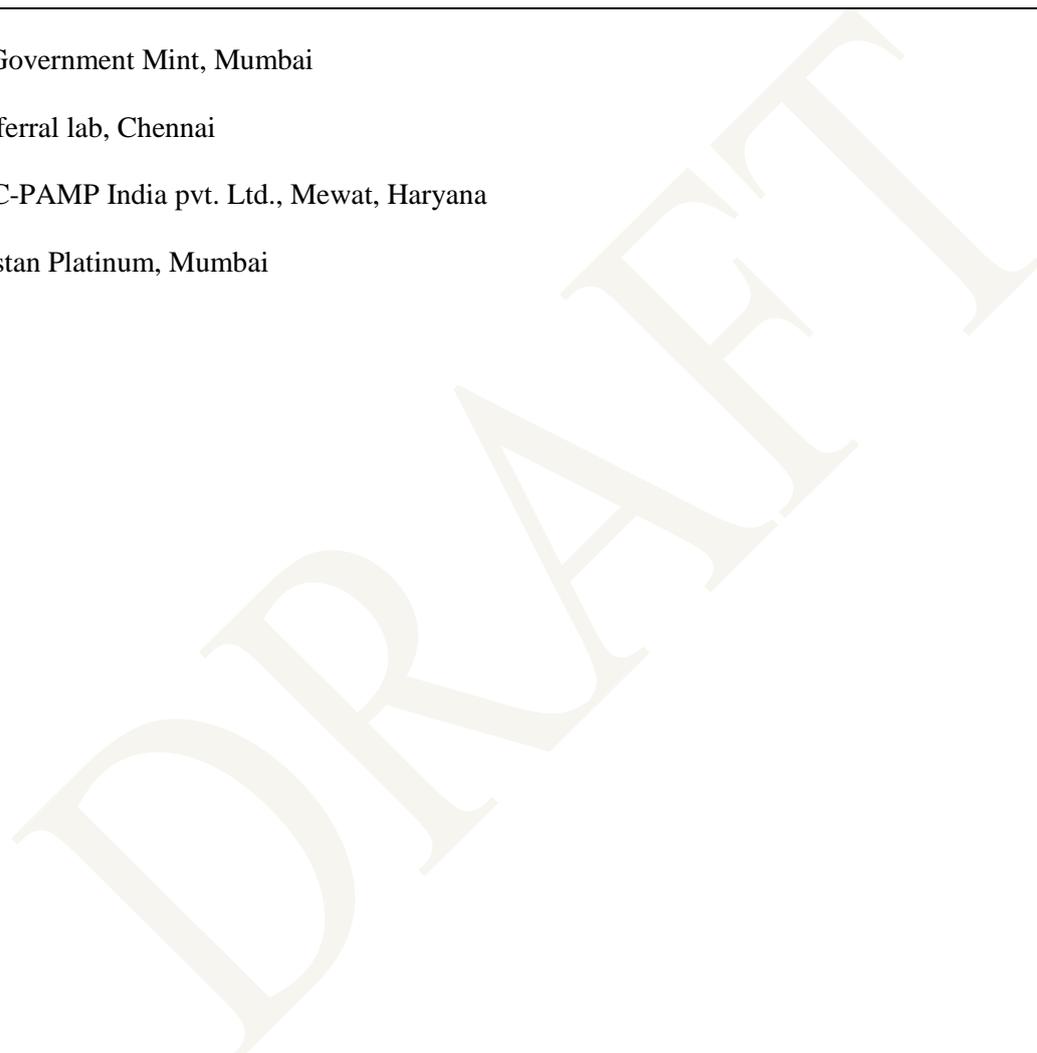
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Annex D – Approved Good Delivery Supervisors

The following companies have been appointed as Supervisors to the ABC Good Delivery system. The role of Supervisors in the Good Delivery system is to witness dip sampling operations for Proactive Monitoring and to report on these to the ABC.

Inclusion in this list does not constitute or imply any representation or warranty by the ABC as to creditworthiness or as to the services or goods supplied or quality or compliance with any specification relating thereto. No liability for direct or consequential loss, howsoever caused, whether by negligence or otherwise, whether by use of this list or reliance thereon, is accepted by the ABC.

Company	Address	Contact Details
India Government Mint, Mumbai		
BIS referral lab, Chennai		
MMTC-PAMP India pvt. Ltd., Mewat, Haryana		
Hindustan Platinum, Mumbai		



Annex E – List of Security Transport Companies

List of Security Transport Companies that are Members of the ABC

Inclusion in this list does not constitute or imply any representation or warranty by the ABC as to creditworthiness or as to the services or goods supplied or quality or compliance with any specification relating thereto. No liability for direct or consequential loss, howsoever caused, whether by negligence or otherwise, whether by use of this list or reliance thereon, is accepted by the ABC.

Company	Contact Details
Brinks India	
Sequel logistics	
Any others	

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Annex F – Approved Weighers of Gold and Silver Bars

The following is a list of weighers of gold and silver bars whose weighing facilities, procedures and capability meet the standards required by the ABC.

It should be noted that inclusion in the Approved Weighers List relates solely to the weighing by the entities listed of gold and silver bars according to the standards laid down by the ABC.

Inclusion in this list does not constitute or imply any representation or warranty by the ABC as to creditworthiness or as to the services or goods supplied or quality or compliance with any specification relating thereto. No liability for direct or consequential loss, howsoever caused, whether by negligence or otherwise, whether by use of this list or reliance thereon, is accepted by the ABC.

Company	Address
Brinks India	
Sequel Logistics	
Any other as may be notified	

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Annex G – Weighing, Packing and Delivery Procedures**1. Weighing procedures****(a) Gold**

Bars are weighed on an electronic balance.

Electronic Balance

Where an electronic balance is used for weighing gold bars it should comply with the following criteria.

1. Capable of weighing Good Delivery gold bars, as defined by the ABC, of one kilo weight in the weight range 1,000 gm to 1,001 gm.
2. The scales shall be capable of being ISO marked in accordance with all applicable ISO directives.
3. Verification scale interval $(e) \leq 0.1$ g
4. Readability $(d) \leq 0.01$ g
5. Uncertainty of calibration measurement less than 0.05 g
6. The readability division (d) values must be capable of being presented on a digital electronic output device (e.g., RS232C, USB) after legal verification of the scales
7. Capable of displaying the metric weight.
8. The Accuracy Class (according to European Council Directive 2009/23/EC) shall be Class I
9. The scales shall be capable of being adjusted and calibrated by users by the application of a 1,000 gm. stainless steel Class F1 weight. The weight's value shall be able to be input digitally in kg

10. The scales shall have internal calibration masses to enable automatic or semi-automatic adjustments/calibrations
11. It shall be possible to adjust the notional value of the internal masses by input of the measured value in kg from a calibration certificate of stainless steel weight.
12. It shall be possible to switch off/on the automated function of the internal masses
13. The scales shall have a flat-topped impact protection boss, approximately 80mm in diameter, onto which gold bars can be placed for weighing
14. The impact protection boss shall be the only part of the scales exposed to the live weighing activity
15. The scales' weighing parts shall be protected against the influences of drafts
16. The scales shall be capable of verification at least within the range 15 to 25 degrees Centigrade
17. It shall be possible to separate the scale indicator/keyboard from the weighing platform so that vibrations are not transmitted to the platform when the keyboard is used
18. The scales shall be provided with an internal, legal-for-trade alibi memory for saving the weight (kg), date, time, serial or batch number and transaction number
19. Scales to be compliant with European standard EN 45501 and OIML International Recommendation R76
20. The scales' weighing mechanism shall be rugged and capable of withstanding weighing of multiple kilos of bars every working day
21. Average stabilisation time for each weighing 1.0 seconds
22. Average response time 1.5 seconds
23. Electrical power requirement shall be 230VAC or 115VAC +15%, -20%
24. Ingress Protection to IP20
25. Warm-up time after connection to power ≤ 2 hours

Silver

Bars are weighed on an electronic balance.

Electronic balance

Electronic balances used for weighing silver bars should comply with the following criteria.

1. capable of weighing silver from 14kg to 16kg;
2. European Union Verification interval no greater than 0.1 gm;
3. readability less than 0.1 gm;
4. internal calibration weight which can be activated automatically or via keyboard – calibration should be undertaken on a daily basis;
5. maximum eccentricity error not greater than 0.5 gm;
6. maximum linearity deviation not greater than 0.5 gm;
7. repeatability not greater than 0.5 gm;
8. uncertainty of calibration measurement less than 0.5 gm;
9. capable of Weights and Measures Verification for weighing silver (i.e. a Class I or II balance/scale having a National or EU Type approval certificate);

An electronic balance should remain powered continuously. If for any reason the balance has been disconnected from the mains or switched off, it should not be used until it has been powered for at least one hour.

Electronic balances used for weighing silver generally show the weight to two decimal places. Because of the uncertainty in the second decimal digit, the recorded weight will be reduced to the next lower 0.1 gm division if the second decimal is less than 5. Thus a

bar showing a weight of 1000.95 on the scale would be recorded as 1000.9 whereas a bar showing as 1000.94 would be recorded as 1000.8. See annex H for examples of how the weight is determined.

2. Delivery and Packing

The ABC recommends the following good market practice for delivery and packing.

Gold and Silver

A buyer or other party taking delivery of metal may not, in the absence of express contrary agreement with the party making the delivery, stipulate any particular brand when taking delivery.

In all cases, the packing of Good Delivery bars should be kept to a sensible minimum in order to prevent time-consuming unpacking of deliveries.

Bars should ideally be packed in the order in which they appear on the relevant weight list. Weight lists (in the approved format described in Annex H) must be machine readable (eg in the form of an Excel spreadsheet or a .csv file). Weight lists should be dated.

A copy of the weight list should be attached to the bars. The inclusion of such a list should be taken as confirmation that the bars have been weighed in accordance with Weighing Procedures.

3. ABC Approved Weighers

The ABC has drawn up and maintains a list of Approved Weighers, (see Annex F).

If a weighing dispute should arise, it will be referred by the Physical Committee to an ABC approved weigher not associated with the dispute who will express a non-binding view as to who is responsible for any weight difference.

4. Further information

Any questions or requests for further information about the weighing, packing and delivery procedures for gold and silver bars should be addressed to the Chief Executive of the ABC.

Annex H – Weight Lists

This Annex shows the form of weight lists that should accompany shipments of GD bars. The form of listing used for bars which are being submitted as part of an application for GD accreditation differs from that used for commercial shipments as shown below.

It is important that weight lists show the correct number of decimal places for the weights and assays.

Commercial Weight Lists**GOLD**

Serial Number	Brand Code	Gross weight	Assay	Fine Weight
123456	ABC			

SILVER**Gross Weight**

Serial Number	Brand Code	Assay ⁽²⁾
234567	XYZ	

Weight lists accompanying bars (whether for commercial shipments or for bars submitted by applicants) must be provided in a machine-readable electronic form, such as an Excel spreadsheet or a file using comma-separated variables.

Notes Applying to both Gold and Silver:

- (1) In the case of commercial shipments of silver bars, the fineness marked on the bar and shown on the weight list should be in the same format (for example, whether 999.0, 999 or 999.9).

Application Weight Lists

For Good Delivery Applications, the weight list should show both the four and five figure assay values of the bars. This is to allow comparison to be made between the assays determined by the applicant and the ABC's referees.

The fully marked bar submitted by silver applicants should show the fineness as it would appear on commercial bars as described above (eg, 999.0, 999 or 999.9).

The fineness on gold bars with assays even marginally below 999.9 or 99.50 must not be rounded up. Similarly for silver bars at the 999.0 level.

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Annex I – Proactive Monitoring – Procedures and Criteria

1. Introduction

Proactive Monitoring (“PAM”) of refiners on the ABC Good Delivery (“GD”) List is designed mainly to provide reassurance to purchasers about the quality they can expect from GD bars.

The main method of monitoring requires the refiner to submit a dip sample for testing by one of the ABC’s GD referees. The referees are all GD refiners of both gold and silver, who have previously demonstrated to the ABC’s satisfaction a very high level of accuracy in the assaying of gold and silver. They also manufactured sets of reference samples which are free from detectable inhomogeneity and whose assay values were established to high levels of accuracy by means of an extensive programme of crosschecking. All GD refiners (including referees) will be monitored once every two years.

2. Notice to Refiners about Monitoring

The ABC Chief Executive will send a letter to the ABC contact at the refiner concerned (with a copy via email) informing it that proactive monitoring of its gold and/or silver production is to take place within a period of one month. The ABC is willing to be flexible on the time allowed for arranging the monitoring operation, if for example this is affected by holiday periods or other enforced shutdowns.

The monitoring operation will normally begin with the taking of a dip sample from a production melt, this operation being witnessed by a representative of an ABC-approved Supervisor (see the list in Annex D). Refiners that are on both the gold and silver Lists will be required to undergo monitoring for both metals at the same time (for instance, with the procedures described below being carried out on the same or successive days).

3. Dip Sampling

3.1 Appointment of Supervisor

A refiner being monitored by the dip sampling method should, in the first place, appoint a supervisor from the ABC-approved list to witness and report to the ABC about the sampling operation. The list includes the internationally recognized assaying and inspection companies which are within the ABC Membership.

The refiner must pay the costs and expenses of the supervisor.

Witnessing of Dip Sample

The melt from which the dip sample is taken should have a fineness in the range of 999 or above for silver and between 995.0 and a maximum of 999.0 for gold.

The sample should be taken from a normal production melt and the operations leading up to the actual casting of the sample must be witnessed by the supervisor. The refiner should be confident about what the melt contains and that it is homogeneous before taking the dip sample. The dip sample should be taken at the final stage of production, that is, just before casting.

The purpose of taking the dip sample is to provide sufficient homogeneous material to provide the samples to be assayed by the refiner and the ABC's referees, together with enough spare samples in case of various eventualities (such as a sample being lost in the post).

The actual method of taking and casting the dip sample can be either of the following.

(1) The refiner may use a standard ABC mould (which will be brought to the refinery by the supervisor). This consists of a two-part cast iron mould which produces a casting with dimensions of

- for silver: 60 mm in width, 6 mm in thickness and 100 mm in height;
- for gold: 60 mm in width, 6 mm in thickness and 50 mm in height.

The refinery should have a guillotine or shear available which can be used to crop 5 mm from each edge. In the case of silver, the cropped casting should then be cut into 8 pieces of approximately 25 x 22.5 mm each (giving a sample weight of around 35 grams). In the case of gold, the guillotine should be used to cut off eight samples of approximately 10 grams each.

(2) The refiner can use its normal method of dip sampling, provided that this will produce the necessary samples for fire assay (in the case of gold) and, in the case of silver, for spectrographic analysis, including by spark OES which requires a plate type sample of dimensions approximately 25 x 25 mm).

The supervisor will report to the ABC using a standardised format including information on:

- the use to which the refined metal will be put,
- the raw materials used,
- the processes leading up to the sample being taken,
- the method of dip sampling employed and,
- in the case of bars which are to be numbered, the numbers of the bars produced.

3.2 Treatment of the Dip Samples

Two of the eight samples will be sealed and sent by the supervisor to the ABC. One will be left with the refiner for assaying and five will be sealed by the supervisor and left with the refiner as reserves.

Refiner Assay

The sample left with the refiner by the supervisor should be assayed by corrected fire assay in the case of gold and by an appropriate spectrographic method of analysis in the case of silver. The number of individual fire assay trials to be carried out is not specified by the ABC but is instead left to the refiner, according to its normal practice. For gold fire assays, the report should include the individual trial results expressed to five significant figures of fineness and the mean of the trial results, also to five figures. The assay results should be presented in an Excel spreadsheet and submitted by email to the ABC Executive within four working days after the dip sampling.

The method of assaying must be stated in the report (including the type of spectrographic testing used for silver). In the case of the assaying of silver by spectrographic methods, oxygen and nitrogen should be ignored when deducting the sum of the impurities from 1000 (in other words, these gases should be treated as silver).

When determining the assay of dip samples using spectrographic methods, the applicant is responsible for identifying all impurity elements contained therein which will determine the final assay. The ABC does not prescribe detailed procedures or criteria for assaying by means of spectrographic methods but Annex M lists the elements that ABC Referees will typically determine.

The report on a silver dip sample should include the elemental analysis as well as the silver assay obtained by difference for all trials.

The ABC Chief Executive will treat the information provided by the refiner in strict confidence. In particular, no information which could be used to identify the refiner will be provided to the referee(s) that will assay the dip sample. However, at the conclusion of the Proactive Monitoring the assays of the refiner and referee will be sent (anonymously, via the Executive) to each other.

Referee Assay

On receipt of the two samples by the ABC, both samples will be sent according to a rota to two of the ABC's referees who will be asked to assay the sample they receive to five significant figures. It should be noted that the referees will not be aware of the identity of the refiner that provided the samples. For gold, the referee will carry out at least 6 trials by means of corrected fire assay and will include the results in the report sent to the ABC. In the case of silver, the referee will normally use one or other spectrographic analysis method and determine the silver assay by difference (with dissolved gases such as oxygen counting as silver). The referee will provide to the ABC the elemental analysis of the dip sample as well as the silver assay obtained by difference.

If the assays of the refiner and referees fail to agree within the tolerances described in Section 3 below, the refiner will also be asked to unseal one of the spare samples, carry out an assay on it and submit a new assay report to the ABC within five working days.

4. Assessment Criteria and Further Testing

The refiner's mean assay value (in the case of dip samples) and detailed trial results (in the case of the four-nines gold procedure) will be assessed by the ABC Executive as described below. In cases where the refiner is deemed to have failed, the mean assays and the standard deviations of the assay results may be viewed by members of the ABC Physical Committee (each of whom is bound by confidentiality in relation to the data provided by refiners being monitored).

The criteria are shown below. The tolerances on assaying shown here are expressed in terms of fineness (parts per thousand). Thus, for instance, ± 0.10 for an assay of, say, 998.55 means a range of fineness from 998.45 to 998.65.

4.1 Consideration of Assays from First Dip Samples

The criteria used for assessing the assays on the dip samples provided are based on those contained in the Good Delivery Rules for new applicants. The refiner's and referees' assay results on the two dip samples provided by the refiner will be assessed as follows:

Full pass – In the case of gold, where the dip sample must have a fineness of less than or equal to 999.0, agreement between the referee's and refiner's assays within ± 0.15 will be regarded as a full pass with no further testing being required. In the case of silver, where the fineness of the dip sample can be in the range from 999.0 to 999.9+, different criteria apply depending on whether the sample's fineness (as assayed by the referee) is above or below 999.5. Above 999.5

agreement within ± 0.05 will be regarded as a full pass while below 999.5 agreement within ± 0.15 will be regarded as a full pass.

Borderline failure – i.e., agreement in the range $\pm 0.16-0.25$ (or for silver samples of fineness of 999.5 and above, agreement in the range $\pm 0.06-0.15$). This will require that the refiner be asked to assay one of the spare samples which have been sealed and left at the refinery by the supervisor. On receiving the assay results from the refiner, the ABC Executive will compare all of the results once again and, if necessary taking technical advice, decide on whether the results are acceptable. If they are not, the refiner will be asked to arrange for a new dip sample to be witnessed within one month and provide a further two samples for testing by the ABC's referees.

Fail – i.e. a divergence of >0.25 (or for silver samples of fineness of 999.5 and over, a divergence of >0.15). In this case, the refiner would be required to provide a further two samples from a new witnessed dip sample within one month.

5.2 Cases where a Second Dip Sampling Operation is Required

In general, two different referees will assay the second pair of samples compared to those that assayed the first samples. The ABC will assess the results based on the criteria described above but taking into account all the assay results provided by the refiner and the referees. If necessary after taking advice from its technical consultant, the ABC will then decide on one of the following courses of action.

- The refiner will be informed that it has passed the monitoring test.
- The refiner will be asked to assay a set of ABC reference samples as described in Section 8.2 below (under similar conditions as for a new applicant for Good Delivery accreditation).

In the latter case, the ABC will assess the assay report subsequently provided by the refiner and decide whether:

- The refiner has satisfied the criteria and will therefore be informed that it has succeeded in passing the monitoring test, or
- The refiner will be required to undergo a full re-application for Good Delivery accreditation.

In the latter case, except in cases of gross failure, the refiner will normally continue to be listed until the results of the re-application are available.

5. Conclusion of Monitoring

The ABC Executive will inform the refinery of the outcome of the assay comparisons as soon as they have been reviewed by the ABC's Physical Committee. A table showing the comparison of the mean assay values will be provided to the refiner and the referees which participated on an anonymous basis. The ABC will provide the refiner with a certificate confirming the success of the Proactive Monitoring exercise.

6. Provision of Comparisons of Assay Results

Proactive Monitoring is designed to assist the refining industry to maintain the highest standards in the assaying of gold and silver bullion. To this end the Executive will provide, to the refiner and the referee, the relevant fire assay determinations of the other party on an anonymous basis. For silver dip samples the Executive will provide guidance to the refiner about the differences between its analysis and that of the referee by highlighting any elements which are found in noticeably higher concentrations.

7. Charges for Reference Samples and Re-Testing

In cases where the comparison of the refiner's and referees' dip sample assay results suggests the need for the refiner's assaying ability to be more thoroughly checked by means of it assaying a small set of reference samples, as described above, there will be an additional charge as follows:

- (a) Set of six approximately 5-gram gold samples at a price of Rs. xxx including the value of the metal content, plus VAT (as applicable)
- (b) Set of six approximately 20-gram silver samples at a price of Rs. yyy including the value of the metal content, plus VAT (as applicable)

The cost of shipment of these samples to the refinery will be payable in addition.

The additional charge for a complete reapplication and re-test of the refiner's assaying ability and bars would be the same as for new Good Delivery applicants (see Section 6 of the Good Delivery Rules).

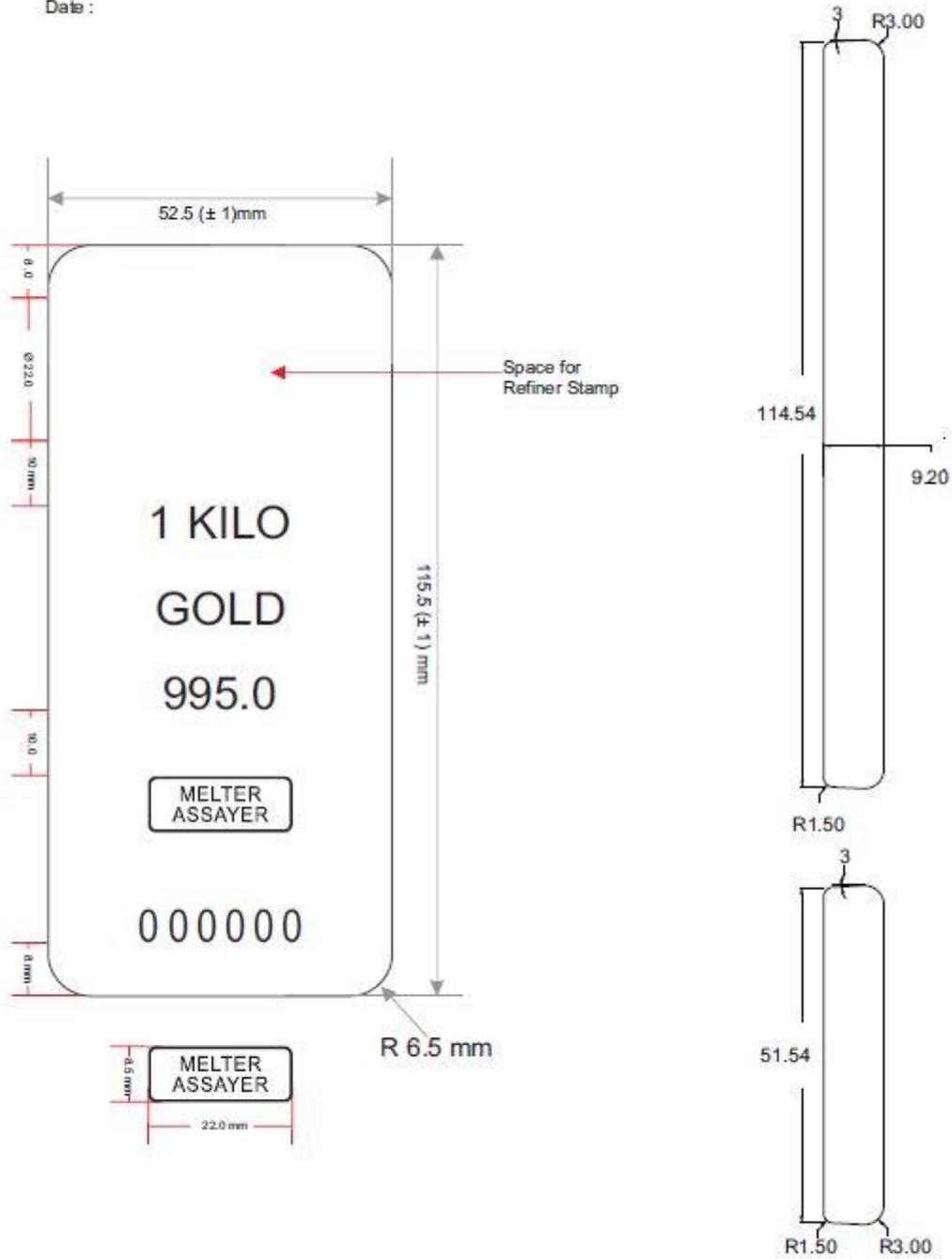
Annex J – Specimen Technical Line Drawings

GRAPHIC DESIGN

Product : INDIA GOOD DELIVERY GOLD BAR

Design No. :

Date :



Note : • All dimensions are in millimeters and to be measured with steel rule.

- Dimension may vary according to specified tolerance of top length and top width.
- All radial measurements are subjects to tolerance variance of 0.5 mm

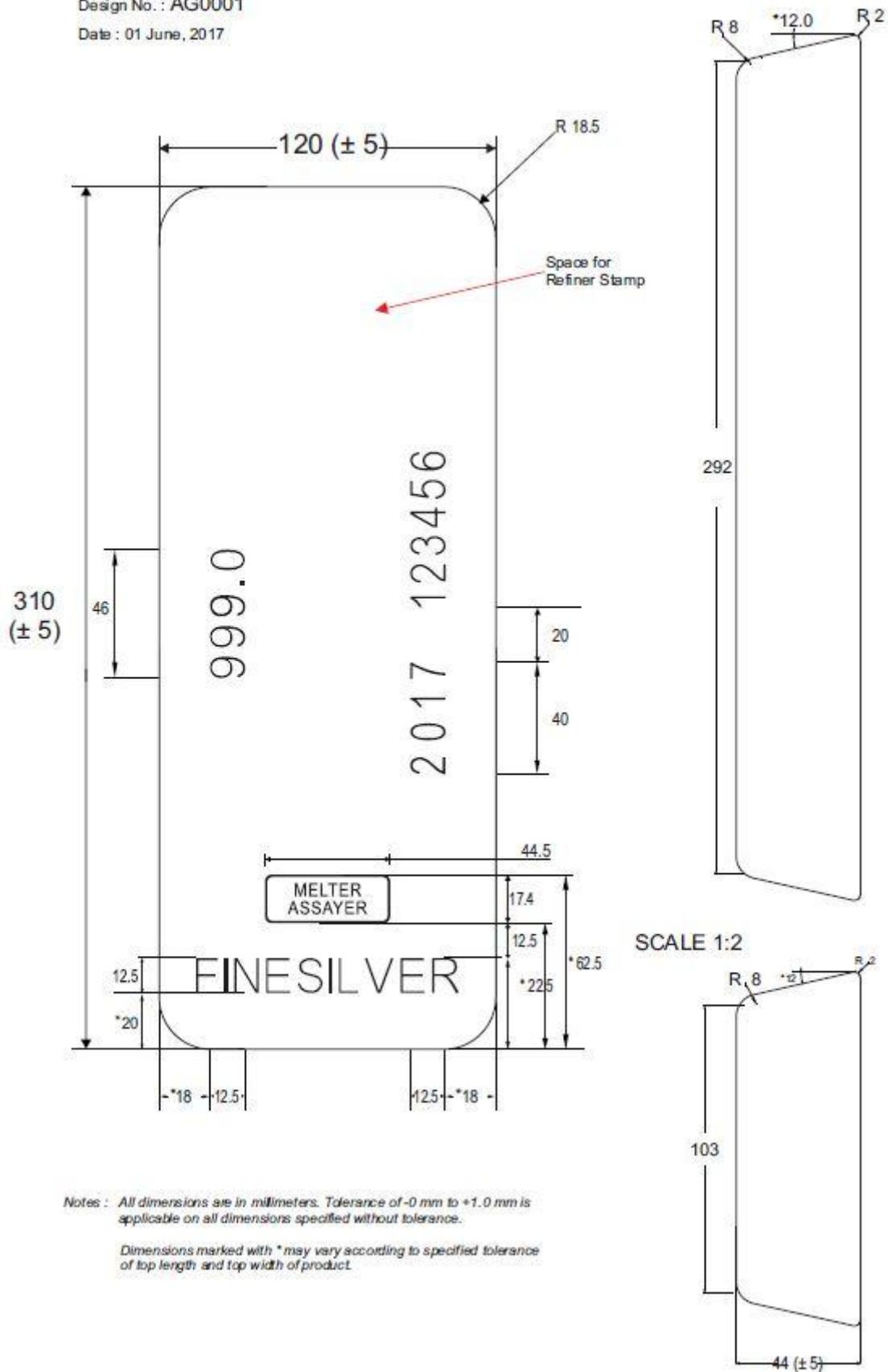
(1) Silver Bar

GRAPHIC DESIGN

Product : INDIA GOOD DELIVERY SILVER BAR

Design No. : AG0001

Date : 01 June, 2017



Notes : All dimensions are in millimeters. Tolerance of -0 mm to +1.0 mm is applicable on all dimensions specified without tolerance.
 Dimensions marked with * may vary according to specified tolerance of top length and top width of product.

Good Delivery Rules

GRAPHIC DESIGN

Product Photographs



Annex L – Facilitators

The following companies have been listed as Facilitators who may be able to provide assistance to applicants in putting together their Good Delivery applications.

An applicant should contact a Facilitator directly to agree the terms and conditions on which the Facilitator may be willing to provide services.

Inclusion in this list does not constitute or imply any representation or warranty by the ABC as to creditworthiness or as to the services or goods supplied or quality or compliance with any specification relating thereto. No liability for direct or consequential loss, howsoever caused, whether by negligence or otherwise, whether by use of this list or reliance thereon, is accepted by the ABC.

Company	Address	Contact Details
MMTC-PAMP India pvt. Ltd.		
Hindustan Platinum Ltd.		

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Good Delivery Rules

Annex M – Residual Elements

Determination of Residual Elements by Spectrographic Analysis

Good Delivery applicants and refiners undergoing Proactive Monitoring, which uses spectrographic analysis for determining the assays of their materials, are responsible for identifying and analysing all residual elements present in their bars or dip samples.

The list shown below is not intended to be prescriptive as far as refiners are concerned. It merely indicates the elements that ABC Referees will typically look for when analysing gold and silver samples by spectrographic methods.

Residual Elements

	<u>995</u> <u>Gold</u>	<u>999</u> <u>Silver</u>
Gold – Au		30
Silver – Ag	x	
Platinum - Pt	x	x
Palladium - Pd	x	x
Rhodium – Rh	x	
Iridium – Ir	x	
Ruthenium – Ru	x	
Al - Aluminium	x	x
As - Arsenic	x	x
Bi - Bismuth	x	20
Ca - Calcium	x	x
Cd - Cadmium	x	x
Co - Cobalt	x	x
Cr - Chromium	x	x
Cu - Copper	500	500
Fe - Iron	50	2
In - Indium		0
Mg - Magnesium	x	x
		x
Mn - Manganese	x	x
Pb - Lead	30	250
Ni - Nickel	x	x
Sb - Antimony	x	x
Se - Selenium	x	x
Si - Silicon	x	x
Sn - Tin	30	x
Te - Tellurium	x	x
Ti - Titanium	x	
Zn - Zinc	x	x

Note: sum total of PGM group (pt, pd, Rh, Ru, Ir, & Is) must not exceed 80 ppm

Good Delivery Rules

Proficiency Testing (Recommended)

The Proficiency Testing Scheme is designed for all GDL refiners to help improve their assaying accuracy against a large group of their peers.

It is generally expected that refiners' laboratories will already be using well-established, validated methods of assaying, as well as their own quality control procedures. Proficiency Testing (PT) provides an important layer of external quality control to help validate these internal procedures.

How does PT differ from Proactive Monitoring?

- PT is recommended, whereas PAM is mandatory for all accredited refiners.
- PT is run annually, whereas the PAM is run over a two-year cycle.
- PT involves a refiner's laboratory assaying a single piece of gold and/or silver and submitting the results to the Technical Committee. PAM goes wider than just assay testing: it involves production and financial tests.
- PT is anonymous. A code is assigned to each lab, and only each individual participant knows their code but not those of the other participants.
- PT results are published in a report. Whilst the identities of each lab are kept anonymous, it does give an opportunity for each participant to compare their results against those of the other participants involved in the scheme.
- PT is really designed for participants to test the assay in their normal testing environment, i.e. it is not expected that they do anything that they wouldn't normally do. With PAM, however, it is expected that labs would make extra special efforts to achieve assaying accuracy.