

**RENEWABLE ENERGY (STANDARDS AND LABELLING)
(IMPROVED BIOMASS COOKSTOVES) REGULATIONS, 2022**

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IN exercise of the power conferred on the Minister responsible for Energy, acting on the recommendation of the Board, by paragraphs (d) and (e) of section 50 of the Renewable Energy Act, 2011 (Act 832), these Regulations are made this 28th day of June, 2022.

Preliminary Provisions

Purpose of Regulations

1. The purpose of these Regulations is to promote the efficient use of improved biomass cookstoves in the country and mitigate related climate change by

(a) providing for

- (i) the enforcement of Standards set out in the First Schedule and the minimum performance requirements set out in the Second Schedule;
- (ii) the labelling of improved biomass cookstoves;
- (iii) supplementary product information on improved biomass cookstoves; and
- (iv) the registration of models of improved biomass cookstoves in the Renewable Energy Product Register; and

(b) prohibiting the manufacture, importation, offer for sale, sale, storage, donation, disposal, installation or use of an improved biomass cookstove that does not meet the minimum performance requirements set out in the Second Schedule.

Application of Regulations

2. (1) These Regulations apply to an improved biomass cookstove, manufactured in the country or imported into the country for display, sale or use as

(a) a domestic cookstove; or

(b) an institutional cookstove

that uses solid biomass fuels including firewood, charcoal, briquette or pellet.

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- (3) These Regulations do not apply to
- (a) a traditional biomass cookstove manufactured for sale and use in the country; and
 - (b) a domestic and institutional biomass cookstove built in-situ for use in the country upon request of a consumer.

Duties and Requirements

Duty to comply with requirements

3. (1) A person who manufactures, imports, offers for sale, sells, stores, supplies, distributes, donates or otherwise disposes of an improved biomass cookstove for use in the country shall ensure that each model of the improved biomass cookstove

- (a) is registered with the Commission; and
- (b) meets the
 - (i) Standards set out in the First Schedule;
 - (ii) minimum thermal efficiency and safety score set out in Part One of the Second Schedule;
 - (iii) labelling requirements set out in the Third Schedule; and
 - (iv) information requirements set out in the Fourth Schedule.

(2) A person who advertises an improved biomass cookstove shall comply with the provisions of Part Five of the Fourth Schedule.

Prohibition of manufacture, importation, offer for sale, sale, storage, donation, disposal, installation or use of improved biomass cookstove

4. (1) A person shall not manufacture, import, offer for sale, sell, store, donate, or otherwise dispose of, install or use an improved biomass cookstove in the country unless the improved biomass cookstove meets the

- (a) minimum thermal efficiency set out in Part One of the Second Schedule; and
- (b) requirements
 - (i) set out in Parts Two and Three of the Second Schedule; and

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(ii) of the Standards.

(2) An enforcement authority shall

- (a) detain, cause to be re-exported or seize and destroy an improved biomass cookstove imported for use in the country contrary to subregulation (1); or
- (b) seize and destroy an improved biomass cookstove manufactured for use in the country contrary to subregulation (1).

Category of improved biomass cookstove

5. The category of an improved biomass cookstove shall be determined in accordance with the categories set out in Part Two of the Fourth Schedule.

Thermal efficiency star rating of improved biomass cookstove

6. The thermal efficiency star rating of an improved biomass cookstove shall be determined in accordance with the ratings set out in Part Two of the Second Schedule.

Measurement methods

7. The information to be provided pursuant to regulations 8 and 9 shall be obtained by

- (a) a reliable, accurate and reproducible measurement which takes into account recognised state-of-the-art measurements; and
- (b) calculation methods

in accordance with the Standards.

Technical documentation

8. (1) A person shall not manufacture, import, offer for sale, sell, store, distribute, donate or otherwise dispose of an improved biomass cookstove for use in the country, unless that person has provided the Commission with sufficient technical documentation to enable the Commission

- (a) ascertain the accuracy of the information contained
 - (i) in the Product Information Sheet; or
 - (ii) on the label; and
- (b) register each model of the improved biomass cookstove in the Renewable Energy Product Register.

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- (2) The technical documentation referred to in subregulation (1) shall
- (a) be in the English language;
 - (b) include the Product Information Sheet set out in Part One of the Fourth Schedule; and
 - (c) contain the information set out in Part Three of the Fourth Schedule marked “Technical Documentation”.
- (3) The technical documentation shall
- (a) be prepared for each model of an improved biomass cookstove placed on the market; and
 - (b) include
 - (i) the name and address of the supplier;
 - (ii) the description of the improved biomass cookstove, for purposes of identification;
 - (iii) the model identifier of the manufacturer;
 - (iv) the relevant drawings on the main design features of the model and parameters of the improved biomass cookstove that affect the thermal efficiency, emissions and safety of the improved biomass cookstove;
 - (v) reports of relevant measurement tests carried out in compliance with the Standards;
 - (vi) details of calculations, extrapolations and tests carried out to verify the accuracy of the calculations;
 - (vii) the installation and operating instructions; and
 - (viii) the period within which the model of the improved biomass cookstove was manufactured.

Labelling and information requirements

9. (1) A person shall not manufacture, import, offer for sale, sell, store, supply, distribute, donate or otherwise dispose of an improved biomass cookstove for use in country, unless the improved biomass cookstove and the packaging of the improved biomass cookstove meet the following requirements:

- (a) the improved biomass cookstove shall bear a label
 - (i) in the form set out in the Third Schedule; and
 - (ii) placed on the back of the improved biomass cookstove;

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- (b) the information in respect of the improved biomass cookstove indicated on the packaging of the improved biomass cookstove shall be in the English language;
- (c) the Product Information Sheet in respect of the improved biomass cookstove shall be as set out in Part One of the Fourth Schedule;
- (d) the label on the packaging containing an improved biomass cookstove shall
 - (i) contain the information set out in the Third Schedule; and
 - (ii) be printed in colour;
- (e) the labels on the improved biomass cookstove and on the packaging of the improved biomass cookstove shall include the following information:
 - (i) the Quick Response Code;
 - (ii) the thermal efficiency star rating of the improved biomass cookstove, determined in accordance with the test procedures and calculations of the Standards specified in the First and Second Schedules;
 - (iii) the fuel savings of the improved biomass cookstove, determined in accordance with the procedure specified in Part Two of the Second Schedule;
 - (iv) the name or trade mark of the manufacturer;
 - (v) the model identifier of the manufacturer;
 - (vi) the type of improved biomass cookstove;
 - (vii) the type of fuel used by the improved biomass cookstove;
 - (viii) the maximum pot size of the improved biomass cookstove;
 - (ix) the average particulate matter (PM_{2.5}) and carbon monoxide (CO) emissions values of the improved biomass cookstove;
 - (x) the year of manufacture;

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- (xi) the country of origin or manufacture; and
 - (xii) the number of stars corresponding to the thermal efficiency star rating class in relation to the information referred to in subparagraph (ii) of paragraph (b) of subregulation (1) of regulation 3 and shaded in black;
- (f) the label on the improved biomass cookstove shall be printed in colour on a waterproof material and pasted conspicuously on the improved biomass cookstove;
- (g) the background of a label printed or pasted on each packaging containing the improved biomass cookstove shall be gold in colour;
- (h) all the stars on the label of the improved biomass cookstove shall be shaded in black; and
- (i) the text on the label of the improved biomass cookstove shall be black, gold, white and red in colour.
- (2) Despite regulation 19, an update to the Standards shall take precedence over the requirements specified in paragraph (e) of subregulation (1) and the Second Schedule.
- (3) Where
- (a) a side of the packaging is not large enough to contain a label and the blank border; or
 - (b) a label would cover more than fifty per cent of the surface area of the largest side of a packaging,
- the label and the blank border shall be reduced to not less than forty per cent of the largest side of the packaging and pasted on the largest side of the packaging.
- (4) A person shall not remove the label on an improved biomass cookstove or the packaging containing an improved biomass cookstove before the first retail purchase of the improved biomass cookstove.
- (5) For the purposes of this regulation, “first retail purchase” means purchase of an improved biomass cookstove by an end user.

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Registration of Improved Biomass Cookstoves

Renewable Energy Product Register

10. (1) The Commission shall establish, keep and maintain a Renewable Energy Product Register.

(2) The Renewable Energy Product Register shall contain the information specified in subregulation (5) of regulation 11.

Application for registration

11. (1) A person who

(a) manufactures an improved biomass cookstove in the country;
or

(b) imports an improved biomass cookstove into the country for use in the country shall, prior to the manufacture or importation, ensure that each model of the improved biomass cookstove is registered with the Commission.

(2) A person who

(a) manufactures an improved biomass cookstove in the country;
or

(b) imports an improved biomass cookstove into the country for use in the country shall apply to the Commission for the registration of the improved biomass cookstove.

(3) An application for registration under subregulation (2) shall be made in writing or electronically on the website of the Commission and accompanied with the prescribed fee.

(4) An application for registration shall be accompanied with a test report from an accredited test laboratory that demonstrates that

(a) the improved biomass cookstove meets the minimum performance requirements; and

(b) the test report corresponds to the fuel efficiency that is provided on the thermal efficiency label of the improved biomass cookstove.

(5) The following information shall be provided for each registration of a model of an improved biomass cookstove:

(a) the brand or trademark, if any, used in connection with a supply of the model;

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- (b) the model identifier issued by the manufacturer for each model covered by the registration;
- (c) the Product Information Sheet of the model;
- (d) the date the registration takes effect;
- (e) a unique identifier for the registration issued by the Commission;
- (f) the names and contact details of the applicant and contact person in relation to the registration;
- (g) if the model is to be registered as a replacement model of an earlier registered model, that fact and details to identify the replaced model, including the date the replacement was made;
- (h) if a model to be registered is affected by a replacement, that fact and details to identify the replaced model and replacement model, including the date the replacement was made;
- (i) any information specified in these Regulations in relation to that model of improved biomass cookstove; and
- (j) any other information the Commission may consider appropriate.

Consideration of application

12. (1) The Commission shall, on receipt of an application for registration of an improved biomass cookstove, consider the application.

(2) The Commission shall, in considering the application, have regard to the requirements specified in subregulation (5) of regulation 11.

Grant of application

13. (1) The Commission may, within fourteen days after receipt of an application, grant or refuse an application.

(2) Where the Commission decides to grant an application, the Commission shall

- (a) within three days after the date of the decision, inform the applicant, in writing or electronically as the case may be, of the decision; and
- (b) enter the information specified in subregulation (5) of regulation 11 in the Renewable Energy Product Register.

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(3) Where the Commission refuses to grant an application, the Commission shall within three days after the date of the decision communicate to the applicant, in writing or electronically as the case may be,

- (a) the reason for the refusal; and
- (b) the applicable Standards the model of the improved biomass cookstove is required to meet.

Duties of Dealers and Suppliers of Improved Biomass Cookstoves

Duty of dealer to keep, maintain and provide technical documentation

14. (1) A dealer shall keep and maintain technical documentation in respect of an improved biomass cookstove for a period of not less than two years after the date of manufacture or importation.

(2) A dealer shall, within two days after a request by an enforcement authority, provide the enforcement authority with technical documentation in respect of an improved biomass cookstove for inspection.

(3) Where a dealer fails to provide technical documentation in respect of an improved biomass cookstove within two days after the request, the enforcement authority shall detain the improved biomass cookstove.

(4) A dealer shall ensure that

- (a) each improved biomass cookstove, at the point of sale, including at trade fairs, bears the label provided by a supplier in accordance with regulation 3, with the label being displaced conspicuously on the face of the improved biomass cookstove;
- (b) in the event of distance selling, the label and Product Information Sheet are provided in accordance with the Third and Fourth Schedules;
- (c) an audio advertisement, including radio and local information broadcast network, on a specific model of an improved biomass cookstove where the brand, capacity, size, category or price is mentioned, includes information on the thermal efficiency rating and the range of thermal efficiency ratings specified in accordance with Part Five of the Fourth Schedule;

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- (d) a visual advertisement for a specific model of an improved biomass cookstove, including an advertisement on the internet, contains information on the thermal efficiency rating of the model of the improved biomass cookstove and the range of thermal efficiency ratings available on the label in accordance with Part Five of the Fourth Schedule; and
- (e) a technical promotional material concerning a specific model of an improved biomass cookstove, including technical promotional material on the internet, which describes the specific technical parameters of the improved biomass cookstove includes
 - (i) the thermal efficiency rating of that model of improved biomass cookstove; and
 - (ii) the range of thermal efficiency ratings available on the label

in accordance with Part Five of the Fourth Schedule.

Duty of supplier to keep, maintain and provide technical documentation

15. (1) A supplier shall keep and maintain technical documentation in respect of each model of an improved biomass cookstove for a period of not less than two years after the date of manufacture or importation.

(2) A supplier shall, on request by an enforcement authority, provide the enforcement authority with technical documentation of the improved biomass cookstove for inspection.

(3) Where a supplier fails to provide technical documentation in respect of an improved biomass cookstove within two days after the request, the enforcement authority shall detain the improved biomass cookstove.

Duty of supplier to keep, maintain and provide Product Information Sheet

16. (1) A supplier shall keep and maintain in the possession of the supplier a Product Information Sheet in respect of each improved biomass cookstove in the form set out in Part One of the Fourth Schedule.

- (a) English language; and
- (b) form set out in Part One of the Fourth Schedule.

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(2) A supplier shall, on request by an enforcement authority, provide the enforcement authority with a Product Information Sheet which shall be in the

- (a) English language; and
- (b) form set out in Part One of the Fourth Schedule.

Duty of supplier to provide information for statistical purposes

17. (1) A person who manufactures in the country, imports into the country or exports out of the country an improved biomass cookstove or an assembly of components that incorporates an improved biomass cookstove, shall provide the Commission with the following information not later than four months after the end of each year:

- (a) the number of improved biomass cookstoves of each model that the person manufactured, exported or imported into the country in the relevant year;
- (b) the number of improved biomass cookstoves of each model that the person sold in the country in the relevant year;
- (c) the number of improved biomass cookstoves of each model that the person exported from the country in the relevant year;
- (d) the name of each model that the person discontinued
 - (i) manufacturing in the relevant year;
 - (ii) exporting in the relevant year; or
 - (iii) importing in the relevant year; and
- (e) a copy of any existing test report, or other technical performance data specified by the Commission, for each model specified under paragraph (d).

(2) Upon a written request by the Commission, a person who manufactures an improved biomass cookstove for use in the country or imports an improved biomass cookstove into the country shall provide the following information to the Commission not later than forty days after receiving the request:

- (a) the number of improved biomass cookstoves in each product class specified by the Commission that the person sold to a purchaser in the country in each of the preceding three years; and

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- (b) the technical performance characteristics of the improved biomass cookstoves as specified in the request.

Duty of supplier to ensure accuracy of information

18. (1) A supplier shall ensure that the information indicated on a

(a) Product Information Sheet; or

(b) label

in respect of an improved biomass cookstove is accurate.

(2) The duty imposed on a supplier under subregulation (1) does not affect any other right of action which a person may have by law against a person with respect to the inaccuracy of information on a Product Information Sheet or on a label.

Access to information on technical documentation and Product Information Sheet

19. (1) The information required under regulations 8, 9, 14, 15 and 16 shall be obtained in accordance with the test procedures required by the Standards.

(2) Information obtained in a manner other than in accordance with subregulation (1) shall, for the purposes of these Regulations, be invalid.

Product brochure in respect of improved biomass cookstove

20. Where a supplier provides a product brochure in respect of an improved biomass cookstove, the brochure shall contain a Product Information Sheet which shall be in the

(a) English language; and

(b) form set out in Part One of the Fourth Schedule.

Information

Public information

21. (1) The information provided by a supplier on the Product Information Sheet or on a label of an improved biomass cookstove is deemed public information.

(2) A supplier is deemed to have consented to the publication of the information indicated on a Product Information Sheet or on a label in respect of an improved biomass cookstove.

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Information in respect of mail order and other distance selling

22. (1) Where a person offers an improved biomass cookstove for sale to another person in the country through a medium of communication including a mail order or any other distance selling medium, that person shall provide information in respect of the improved biomass cookstove.

- (2) The information referred to in subregulation (1) shall
- (a) be in the English Language;
 - (b) include the product registration number assigned by the Commission upon registration in the Renewable Energy Product Register;
 - (c) include the information set out in Part Four of the Fourth Schedule; and
 - (d) be written in a manner that is legible.

Obligations of audio or audio-visual broadcasting service provider

23. Where an audio or audio-visual broadcasting service provider advertises an improved biomass cookstove, and the information in the advertisement includes the brand, model, size, price and any other information that is specific to a particular model, that service provider shall ensure that

- (a) the advertisement has been vetted and approved by the Commission; and
- (b) the advertisement includes
 - (i) information on the thermal efficiency star rating of the improved biomass cookstove;
 - (ii) a statement that the advertisement has been vetted and approved by the Commission; and
 - (iii) any other information required under Part Five of the Fourth Schedule.

Obligations of e-commerce platform

24. (1) A person shall not offer for sale, sell, supply, distribute or otherwise dispose of an improved biomass cookstove through a promotion on the internet, unless

- (a) the thermal efficiency rating of the improved biomass cookstove is posted next to the price of the improved biomass cookstove; and

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- (b) the label of the improved biomass cookstove is made available to consumers in the same medium of communication.
- (2) Where an e-commerce service provider allows the direct sale of an improved biomass cookstove through the website of the service provider, the service provider shall
 - (a) enable the display of the
 - (i) electronic label; and
 - (ii) electronic Product Information Sheet provided by the dealer on the display mechanism in accordance with Part Six of the Fourth Schedule; and
 - (b) inform the dealer of the obligation to display the electronic label and electronic Product Information Sheet.

Misleading information

25. (1) A person shall not display a label, mark, symbol or inscription which relates to the energy consumption of an improved biomass cookstove, if the display is likely to be
- (a) deceptive;
 - (b) misleading; or
 - (c) false.
- (2) A person shall not broadcast an advertisement relating to the thermal efficiency performance of an improved biomass cookstove if the information in the advertisement is likely to be
- (a) deceptive;
 - (b) misleading; or
 - (c) false.
- (3) Subregulations (1) and (2) does not apply to
- (a) a label;
 - (b) a mark;
 - (c) a symbol; or
 - (d) an inscription
- displayed under an environmental labelling scheme or endorsement labelling scheme.

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Restriction on disclosure of information

26. (1) An enforcement authority shall not disclose any information which consists of a

- (a) secret manufacturing process; or
- (b) trade secret

that was obtained by that enforcement authority in the course of the exercise of a power or duty conferred on that person by these Regulations.

(2) Despite subregulation (1), an enforcement authority may disclose information if

- (a) the information is public information; or
- (b) the disclosure is made
 - (i) for the purpose of facilitating the exercise of power by an enforcement authority under these Regulations or any other enactment;
 - (ii) in connection with the investigation of an offence; or
 - (iii) for the purpose of a civil or criminal proceeding.

Powers of Enforcement

Power of enforcement authority to require technical documentation

27. Where an enforcement authority suspects that the information given

- (a) in a Product Information Sheet; or
- (b) on a label,

in respect of an improved biomass cookstove is incorrect, that enforcement authority may, by notice served on the supplier or importer of the improved biomass cookstove, require the supplier or importer to furnish the enforcement authority with the technical documentation referred to in regulation 8 within the period specified in the notice.

Power of enforcement authority to inspect improved biomass cookstove

28. An enforcement authority may, at any reasonable time, enter any premises to inspect an improved biomass cookstove if the enforcement authority has reason to believe that the premises are being used for a purpose in contravention of these Regulations.

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Power of enforcement authority to detain or seize record or improved biomass cookstove

29. (1) Subject to these Regulations, where an enforcement authority has reasonable cause to suspect that an offence has been committed or is being committed, that enforcement authority may

- (a) at any reasonable time enter premises other than a dwelling place, and conduct an inspection in accordance with subsection (3) of section 52 of the Energy Commission Act, 1997 (Act 541);
- (b) require a person engaged in a business or employed in connection with a business to produce a record in respect of an improved biomass cookstove;
- (c) detain or seize an improved biomass cookstove that is
 - (i) not labelled;
 - (ii) not properly labelled; or
 - (iii) labelled in a deceptive or misleading manner;
- (d) detain or seize an improved biomass cookstove that is imported without technical documentation which justifies the label affixed on the improved biomass cookstove;
- (e) detain or seize an improved biomass cookstove to enable tests to be carried out;
- (f) detain or seize a record to be used as evidence in proceedings in respect of an offence committed under these Regulations;
- (g) cause a container to be opened for the purpose of inspection;
- (h) break open a container, where implementation of paragraph (g) is not practicable; or
- (i) detain or seize an improved biomass cookstove if the model is not registered in the Renewable Energy Product Register.

(2) For the purposes of paragraphs (b) and (f) of subregulation (1), the enforcement authority may request for information stored electronically to be made available to the enforcement authority in printed form.

Power of enforcement authority to test improved biomass cookstove

30. (1) An enforcement authority may

- (a) obtain, remove and test an improved biomass cookstove; or

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(b) order the testing of an improved biomass cookstove to ascertain whether a provision of these Regulations has been contravened.

(2) A person who suspects that an improved biomass cookstove offered for sale does not comply with the provisions of these Regulations may lodge a complaint with an enforcement authority.

(3) The enforcement authority may, upon receipt of a complaint under subregulation (2), detain and test the improved biomass cookstove.

(4) The test to be conducted in respect of an improved biomass cookstove purchased, obtained or detained under regulation 29 shall be carried out in accordance with the test procedures required by the Standards.

Detention, Re-Exportation and Seizure

Procedure for market surveillance and verification

31. (1) Despite regulation 30, the Commission and the Standards Authority shall conduct market surveillance to ascertain whether an improved biomass cookstove on the market conforms to these Regulations.

(2) The Commission and the Standards Authority shall apply the verification procedure specified in the Fifth Schedule to conduct the market surveillance.

Order to access premises to inspect, detain or seize improved biomass cookstove or record

32. (1) Where

(a) an enforcement authority is refused entry to premises;

(b) a notification to enter premises would defeat the purpose of the entry;

(c) the premises to be entered are unoccupied; or

(d) the occupier of premises to be entered is temporarily absent,

the enforcement authority may apply to a court for an order to enter the premises to inspect, detain or seize an improved biomass cookstove or record, if the enforcement authority has reasonable grounds to believe that an improved biomass cookstove or record on the premises may assist in the disclosure of evidence of the commission of an offence under these Regulations.

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Procedure for detention of improved biomass cookstove

33. (1) An enforcement authority that exercises a power of detention under these Regulations shall, immediately give a written notice to the person against whom the power has been exercised.

(2) The written notice shall state

- (a) the improved biomass cookstove that has been detained; and
- (b) the reason for the detention.

(3) Where an enforcement authority detains an improved biomass cookstove, that improved biomass cookstove may be kept in a warehouse or other secure location reserved for the purpose.

Procedure for re-labelling of detained improved biomass cookstove

34. (1) Subject to these Regulations, where an enforcement authority detains an improved biomass cookstove under paragraph (e) of subregulation (1) of regulation 29, the enforcement authority shall

- (a) within two days after the detention, submit a sample of the improved biomass cookstove for testing; and
- (b) within two days after receipt of the test results, give a notice in writing to the supplier of the improved biomass cookstove to properly label the improved biomass cookstoves if the minimum performance requirements have been complied with.

(2) The notice under paragraph (b) of subregulation (1) shall require an improved biomass cookstove to be re-labelled in the required manner or exported out of the country within twenty-eight days.

(3) Where a supplier is required under subregulation (2) to re-label an improved biomass cookstove, the supplier shall re-label the improved biomass cookstove under the supervision of an officer authorised for the purpose by the Commission or the Standards Authority.

(4) Where a supplier fails to

- (a) re-label the improved biomass cookstove; or
- (b) export the improved biomass cookstove

within twenty-eight days after the notice given under paragraph (b) of subregulation (1), the Commission shall, in consultation with the

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Standards Authority, destroy the improved biomass cookstove in a manner that the Commission may determine.

Procedure for re-exportation of imported improved biomass cookstove

35. (1) An enforcement authority that exercises a power of detention or seizure under these Regulations shall, within seven days after the detention or seizure, give an order in writing to the person against whom the power has been exercised to re-export the improved biomass cookstove.

- (2) The order referred to in subregulation (1) shall state
- (a) the improved biomass cookstove to be re-exported;
 - (b) the reason for the order;
 - (c) the period within which the improved biomass cookstove is to be re-exported; and
 - (d) the fact that the supplier shall be responsible for the cost associated with the re-export.

(3) Where an improved biomass cookstove is kept within premises that are under the control of the owner of the improved biomass cookstove, the owner shall pay a security deposit against any breach of the re-exportation order.

(4) A security deposit under subregulation (3) shall be forfeited in the event of a breach of the re-exportation order, including the sale or destruction of an improved biomass cookstove which has been ordered to be re-exported.

(5) Where a person fails to pay a security deposit imposed under subregulation (3), the Commission may recover the amount imposed as a civil debt.

Procedure for seizure of improved biomass cookstove

36. (1) An enforcement authority that exercises a power of seizure under these Regulations shall, within seven days after the seizure, give a written notice to the person against whom the power has been exercised.

- (2) The written notice under subregulation (1) shall state
- (a) the improved biomass cookstove that has been seized;
 - (b) the reason for the seizure; and
 - (c) the venue and the period within which a petition against the seizure may be brought under regulation 37.

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(3) Where an enforcement authority seizes an improved biomass cookstove, that improved biomass cookstove may be kept in a warehouse or other secure location reserved for the purpose.

(4) The owner of the improved biomass cookstove may be required to pay a deposit to cover the cost of destruction if the improved biomass cookstove does not meet the minimum performance requirements.

(5) Where an improved biomass cookstove is kept within premises that are under the control of the owner of the improved biomass cookstove, the owner shall pay a security deposit against any breach of the seizure order.

(6) A security deposit under subregulation (5) shall be forfeited in the event of a breach of the seizure order, including the sale or destruction of an improved biomass cookstove which has been seized.

(7) Where a person fails to pay a security deposit imposed under subregulation (5), the Commission may recover the amount imposed as a civil debt.

Petition and Compensation

Petition against seizure

37. (1) Subject to these Regulations, a person whose improved biomass cookstove is seized may, within seven days after receipt of the written notice specified in subregulation (1) of regulation 36, petition the Executive Secretary for the release of the seized improved biomass cookstove.

(2) The Executive Secretary shall, within seven days after receipt of a petition under subregulation (1),

(a) confirm the seizure; or

(b) order the release of the seized improved biomass cookstove to the petitioner on a specific day.

(3) A person who is dissatisfied with a decision of the Executive Secretary under subregulation (2) may appeal to the Board within seven days after the receipt of the decision.

(4) The Board shall within thirty days after the receipt of an appeal under subregulation (3)

(a) consult the Standards Authority; and

(b) take a decision on the appeal.

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(5) The Board may release the seized improved biomass cookstove to the petitioner only if the Commission and the Standards Authority fail to prove that an offence under these Regulations has been committed.

(6) A person who is dissatisfied with

(a) a decision of the Board under subregulation (4) may, within fourteen days after the decision; or

(b) the failure of the Board to make a decision within thirty days after receipt of the appeal may, within fourteen days after the failure

apply to the court.

Forfeiture and destruction of seized improved biomass cookstove

38. (1) Where an appeal to the Board under subregulation (3) of regulation 37 is not successful, the enforcement authority shall, within twenty-eight days after the decision of the Board, notify the owner of the improved biomass cookstove of the forfeiture and date of destruction of the seized improved biomass cookstove.

(2) The Commission may, in consultation with the Standards Authority, destroy a forfeited improved biomass cookstove in a manner that the Commission may determine.

(3) Where under subregulation (6) of regulation 37, the court upholds or affirms the decision of the Board to forfeit and destroy the improved biomass cookstove, the Commission shall destroy the improved biomass cookstove within the period given by the court.

Compensation for loss of improved biomass cookstove or record seized

39. (1) Where an enforcement authority exercises power under these Regulations to seize an improved biomass cookstove or record, that enforcement authority is liable to pay compensation to the owner of the improved biomass cookstove or record for a loss or damage caused by the exercise of the power, if

(a) these Regulations have not been contravened in relation to the improved biomass cookstove or record; and

(b) the loss or damage is not attributable to the neglect or the fault of the owner but an official of the Commission.

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(2) Paragraph (b) of subregulation (1) does not apply in cases of *force majeure*.

(3) The compensation payable under subregulation (1) for a loss or damage shall not exceed the value of the improved biomass cookstove or record.

(4) A dispute as to the

(a) right to compensation; or

(b) amount of compensation payable under subregulation (1), shall be determined in the first instance by arbitration in accordance with the Alternative Dispute Resolution Act, 2010 (Act 798).

Recovery of expenses by enforcement authority

40. (1) Where an enforcement authority

(a) seizes;

(b) tests; or

(c) supervises the re-labelling or destruction of

an improved biomass cookstove, that enforcement authority may surcharge the dealer or supplier of the improved biomass cookstove for the expenses incurred for the seizure, testing or supervision.

(2) Despite subregulation (1), where a court convicts a person of an offence in respect of the contravention of a provision of these Regulations, the court may, in addition to any order that the court may make as to cost and expenses, order the person convicted to reimburse the enforcement authority for the expenditure incurred by the enforcement authority in connection with the seizure.

Miscellaneous Provisions

Offences and penalties

41. (1) A person who

(a) manufactures, imports, offers for sale, sells, stores, advertises, distributes, or otherwise disposes of an improved biomass cookstove that

(i) does not meet a requirement in respect of the minimum performance requirements contrary to regulation 3;

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- (ii) is not accompanied by the required technical documentation contrary to regulation 8;
 - (iii) is not labelled or properly labelled contrary to regulation 9; or
 - (iv) is labelled in a deceptive or misleading manner contrary to regulation 25;
- (b) fails to comply with a labelling requirement contrary to regulation 9;
- (c) fails to provide technical documentation contrary to regulation 8, 14 or 15;
- (d) fails to register a model of an improved biomass cookstove contrary to regulation 11;
- (e) fails to provide a Product Information Sheet contrary to regulation 16;
- (f) fails to provide information on an improved biomass cookstove contrary to regulation 17;
- (g) provides inaccurate information contrary to regulation 18;
- (h) provides misleading information contrary to regulation 25;
- (i) advertises an improved biomass cookstove without providing accurate information on the thermal efficiency star rating of the improved biomass cookstove and the range of thermal efficiency of the improved biomass cookstove available contrary to regulation 23;
- (j) offers for sale or sells an improved biomass cookstove over the internet or other distance selling medium without providing the information required contrary to regulation 22 or 24;
- (k) obstructs or interferes with an enforcement authority in the exercise of the powers of that enforcement authority contrary to regulation 29;
- (l) fails to comply with the requirements for re-labelling contrary to regulation 34; or
- (m) violates a seizure order or notice contrary to regulation 36
- commits an offence and is liable on summary conviction to a fine of not less than one hundred and twenty-five penalty units and not more than

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two hundred and fifty penalty units or to a term of imprisonment of not less than six months and not more than twelve months or to both.

(2) A person who commits a second or subsequent offence under subregulation (1) after an earlier conviction under subregulation (1) is liable on summary conviction to a fine not less than two hundred and fifty penalty units and not more than five hundred penalty units or to a term of imprisonment of not less than twelve months and not more than twenty-four months or to both.

(3) Where an offence is committed under these Regulations by a body corporate or by a member of a partnership or other firm, every director or officer of that body corporate or any member of the partnership or other person concerned with the management of the firm shall be deemed to have committed that offence and is liable, on summary conviction, to a fine of not less than five hundred penalty units and not more than one thousand penalty units, and is in addition liable to the payment of compensation for the damage resulting from the breach.

(4) A person shall not be convicted of an offence under subregulation (3), if it is proved that

- (a) the person exercised due diligence to secure compliance with the provisions of these Regulations; and
- (b) the offence was committed without the knowledge, consent or connivance of that person.

Interpretation

42. In these Regulations, unless the context otherwise requires,
- “accredited test laboratory” means a test laboratory that is recognised by the Standards Authority for laboratory testing and product certification;
 - “appliance” means a device or machine for performing a specific task;
 - “audio or audio-visual broadcasting service provider” means a person who provides a service which delivers radio programmes or programmes with hearing and sight components to persons with equipment appropriate for receiving that service, whether the delivery is effected by

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- means of or uses the radio frequency spectrum, cable, optical fibre, satellite, internet radio via streaming media on the internet, or any other means or a combination of those means intended to reach a wide audience;
- “biomass” means organic matter used as fuel, including charcoal, firewood, briquette, and pellets;
- “brochure” means an informative paper document that can be folded into a template, pamphlet or leaflet;
- “Carbon monoxide” means toxic gas formed during the incomplete combustion of carbonaceous material;
- “CO” means carbon monoxide;
- “container” means a receptacle or enclosure for holding a product for storage, packaging and shipping;
- “cookstove” means an appliance primarily employed for the cooking of food, but which may also be employed for space or water heating, or other purposes;
- “court” means a court of competent jurisdiction;
- “dealer” means a retailer or other person who displays, offers for sale or sells an improved biomass cookstove to an end user;
- “distance selling” means the sale of goods or services without the buyer and seller being physically present simultaneously;
- “domestic cookstove” means an improved biomass cookstove designed for use in a household;
- “drawings” means a pictorial or diagrammatic sketch which shows the main features of a cookstove;
- “dwelling place” means a place of residence;
- “electronic Product Information Sheet” means a document containing the following information in electronic format:
- (a) basic product information;
 - (b) energy label information; and
 - (c) special features and characteristics;

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- “emissions” means carbon monoxide or particulate matter;
- “endorsement labelling scheme” includes a voluntary labelling scheme that guarantees the performance standards of the improved biomass cookstove that are equal to or exceed the minimum threshold established by a recognised advisory body;
- “end user” means the first user of an improved biomass cookstove;
- “enforcement authority” means
- (a) an authorised officer of the Commission;
 - (b) an authorised officer of the Standards Authority;
 - (c) an authorised officer of the Customs Division of the Ghana Revenue Authority;
 - (d) an authorised officer of the Ghana Police Service;
- or
- (e) any other authorised person designated by the Customs Division of the Ghana Revenue Authority, the Commission or the Standards Authority to carry out inspections for the purposes of these Regulations;
- “environmental labelling scheme” means a voluntary labelling scheme that provides detailed information on the environment in respect of the performance characteristics of an improved biomass cookstove;
- “forced draft cookstove” means an improved biomass cookstove in which air is circulated for combustion by an external fan which runs on external power from the mains, battery or other sources;
- “GS” means Ghana Standards;
- “importer” means a person who places an improved biomass cookstove from a foreign country on the Ghanaian market and supplies that improved biomass cookstove for use;
- “improved biomass cookstove” means a biomass cookstove proposed for a geographic region or target community which has been shown to outperform a baseline with respect

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- to primary criteria that may include thermal efficiency and safety;
- “institutional cookstove” means an improved biomass cookstove designed for large scale cooking with a capacity of up to one hundred and fifty litres;
- “ISO” means International Organisation for Standardisation;
- “label” means a material attached to an improved biomass cookstove the inscription of which contains information on the energy consumption of the improved biomass cookstove;
- “model identifier” means the code, usually alphanumeric, which distinguishes a specific product model from other models with the same trademark or the same name of the manufacturer, importer or authorised representative;
- “natural draft cookstove” means an improved biomass cookstove in which air required for combustion is circulated naturally;
- “premises” means land and any building, store, shop, apartment, or other structure on the land used for the storage of an improved biomass cookstove;
- “PM” means particulate matter which are fine solids and liquids of a sufficiently small size to be suspended in air;
- “PM_{2.5}” means fine particulate matter where the aerodynamic equivalent diameter of the particles is less than or equal to 2.5 µm;
- “product brochure” includes a pamphlet or booklet that contains introductory information about a product;
- “Product Information Sheet” means a standard table of information related to an improved biomass cookstove;
- “Quick Response Code” means a matrix barcode included on the energy label of a product model that links to the information of the model in the public part of the product database;
- “record” includes a book, document, label, mark, symbol, inscription or information in electronic form;

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“renewable energy product” includes a solar panel, an inverter, a renewable energy battery and an improved biomass cookstove;

“Renewable Energy Product Register” means an official record, kept and maintained by the Commission on performance information in respect of models of renewable energy products that have been certified by the Commission and the Standards Authority for use in Ghana;

“safety” means the ability of an improved biomass cookstove to operate at an acceptable level of risk of harm;

“sale” means the exchange of a product for consideration including hire purchase, credit sale and purchase by instalment;

“Standards” means quality specifications for an improved biomass cookstove as stipulated in the First Schedule;

“Standards Authority” means the Standards Authority established under the Standards Authority Act, 1973 (NRCD 173);

“supplier” means a person or organisation that provides a product including

(a) a manufacturer or the authorised representative of a manufacturer resident in the country; and

(b) an importer or the person who introduces an improved biomass cookstove on the Ghanaian market;

“supply” includes an offer to supply, a contract to supply and an advertisement for the supply of an improved biomass cookstove but excludes the exhibition at a trade fair of an improved biomass cookstove that is prohibited by these Regulations;

“supporting document” includes a book, document, label, mark, symbol inscription or record in an electronic form;

“thermal efficiency” means the ratio of useful energy delivered for heating the contents of a cooking vessel to the energy in the raw fuel as fired;

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“traditional biomass cookstove” means a biomass cookstove or a three-stone open fire that has been in existence in a region and has been established across generations; and
“year” means the period from 1st January to 31st December.

Transitional provision

43. A person who, before the coming into force of these Regulations, has

- (a) manufactured in the country; or
- (b) imported into the country

an improved biomass cookstove that does not comply with these Regulations shall, within one year after the coming into force of these Regulations, sell, distribute, donate or otherwise dispose of that improved biomass cookstove.

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SCHEDULES

FIRST SCHEDULE

STANDARDS

(regulations 1(a)(i), 3(1)(b)(i), 9(1)(e)(ii) and 42)

1. GS ISO 19867-1 – Clean Cookstoves and Clean Cooking Solutions – Harmonized Laboratory Test Protocols – Part 1: Standard Test Sequence for Emissions and Performance, Safety and Durability.
2. GS ISO/TR 19867-3 – Clean Cookstoves and Clean Cooking Solutions – Harmonized Laboratory Test Protocols – Part 3: Voluntary Performance Targets for Cookstoves Based on Laboratory Testing.
3. GS ISO/TR 21276 – Clean Cookstoves and Clean Cooking Solutions - Vocabulary.

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SECOND SCHEDULE

MINIMUM PERFORMANCE REQUIREMENTS

*(regulations 1(a)(i), 1(b), 3(1)(b)(ii), 4(1)(a), 4(1)(b)(i), 6, 9(1)(e)(ii) and (iii),
and 9(2))*

PART ONE

(regulations 3(1)(b)(ii) and 4(1)(a))

1.1 Thermal Efficiency Specification and Star Rating of Improved Biomass Cookstoves

An improved biomass cookstove that is tested shall be assigned a star rating for thermal efficiency performance on a scale of 1-to-5. Cookstoves that use carbonised fuels like charcoal and briquette and cookstoves that use uncarbonised fuels like wood and pellet shall be rated using the ranges specified in Table 1.1.

Table 1.1: Thermal Efficiency of Improved Biomass Cookstoves that us

Star Rating	Thermal Efficiency, η_c (%)	
	Cookstoves that use carbonised fuels	Cookstoves that use uncarbonised fuels
5	$\eta_c \geq 55$	$\eta_c \geq 53$
4	$55 < \eta_c \geq 50$	$53 < \eta_c \geq 46$
3	$50 < \eta_c \geq 45$	$46 < \eta_c \geq 39$
2	$45 < \eta_c \geq 40$	$39 < \eta_c \geq 32$
1	$40 < \eta_c > 35$	$32 < \eta_c \geq 25$

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For example: an improved charcoal or briquette cookstove with thermal efficiency of 49% would be rated 3-star for thermal efficiency, while an improved wood or pellet cookstove with thermal efficiency of 49% would be rated 4-star for thermal efficiency.

1.2 Definition of Thermal Efficiency Star Rating Categories

The star rating categories for thermal efficiency shall be defined as in Table 1.2 (adapted from the ISO voluntary performance targets for cookstoves based on laboratory testing: ISO/TR 19867-3:2018(E)).

Table 1.2: Definition of Star Rating Categories for Thermal Efficiency

Star Rating Category	Thermal Efficiency
Highest (5)	Represents the best existing combustion technology for solid biomass cookstoves.
Intermediate (1-4)	1-star represent improved biomass cookstoves with simple technology improvements over the baseline (open-fires or 'coal pot'). The rating is evenly spaced based on five (5) rating categories.
Lowest (0)	The thermal efficiency observed with inefficient biomass cookstoves including open fires.

1.3 Safety Score

A minimum safety score of 85 measured in accordance with the Standards is required for a biomass cookstove to be considered improved and eligible for labelling if, the minimum thermal efficiency requirement is also met.

Safety is the ability of an improved biomass cookstove to be operated at an acceptable level of risk of harm.

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PART TWO

(regulations 4(1)(b)(i), 6 and 9(1)(e)(iii))

CALCULATIONS OF THERMAL EFFICIENCY AND FUEL EFFICIENCY OR SAVINGS

2.1 Calculation of Thermal Efficiency

- (a) Cooking thermal efficiency with no energy credit for any remaining char shall be calculated using the formula below:

$$\eta_c = \frac{Q_1}{BQ_{\text{net.af}}} \times 100\%$$

Where

- η_c is the cooking thermal efficiency with no energy credit for remaining char, %;
- Q_1 is the useful energy delivered, kJ
- B is the mass of the fuel fed, kg;
- $Q_{\text{net.af}}$ is the lower heating value of the fuel, as fired, kJ/kg.

- (b) Cooking thermal efficiency with energy credit for remaining char shall be calculated using the formula below:

$$\psi_c = \frac{Q_1}{BQ_{\text{net.af}} - CQ_{\text{net.char}}} \times 100\%$$

Where

- ψ_c is the cooking thermal efficiency with energy credit for remaining char, %;
- Q_1 is the useful energy delivered, kJ
- B is the mass of the fuel fed, kg;
- $Q_{\text{net.af}}$ is the lower heating value of the fuel, as fired, kJ/kg;
- C is the mass of the remaining char, kg;
- $Q_{\text{net.char}}$ is the lower heating value of the remaining char, kJ/kg.

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2.2 Calculation of Fuel Efficiency or Savings Based on Thermal Efficiency

The fuel efficiency or savings of an improved biomass cookstove that uses

- (a) carbonised fuels shall be estimated against the thermal efficiency of the traditional aluminum cookstove (“coal pot”); and
 - (b) uncarbonised fuels shall be estimated against the thermal efficiency of the ‘three-stone-fire’
- using the formula:

$$\text{Percent fuel savings} = [1 - (\eta_T / \eta_x)] \times 100\%$$


Where

η_T is the traditional biomass cookstove thermal efficiency, %;

η_x is the new (improved) biomass cookstove thermal efficiency, %.

Table 2.1 shows potential fuel savings of an improved charcoal or briquette cookstove, against a traditional cookstove of thermal efficiency 35%.

Table 2.1: Potential Fuel Savings of an Improved Charcoal or Briquette Cookstove Compared with a Traditional “Coal Pot” Cookstove


Dimensions and Ratings	Star Rating	Thermal Efficiency	Fuel Savings
Better 	5	>55%	>36%
	4	>50%	>30%
	3	>45%	>22%
	2	>40%	>12%
	1	>35%	>2%
	0	35%	-

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For example: An improved charcoal or briquette cookstove with thermal efficiency >40%, compared with a traditional cookstove of thermal efficiency 35%, the anticipated fuel efficiency or savings could be >12%.

Table 2.2 shows the potential fuel savings of an improved wood or pellet cookstove without energy credit for remaining char, against a traditional wood cookstove (“three-stone fire”) of thermal efficiency 20%.

Table 2.2: Potential Fuel Savings of an Improved Wood or Pellet Cookstove Compared with Traditional “Three-Stone Fire” Cookstove

Dimensions and Ratings	Star Rating	Thermal Efficiency	Fuel Savings
Better 	5	>53%	>62%
	4	>46%	>56%
	3	>39%	>48%
	2	>32%	>37%
	1	>25%	>20%
	0	20%	-

For example: An improved wood or pellet cookstove with thermal efficiency >39%, compared with a “three-stone-fire” of thermal efficiency 20%, the anticipated fuel efficiency or savings could be >48%.

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PART THREE

(regulation 4(1)(b)(i))

Voluntary Emissions Performance Specifications, Star Rating and Definitions

3.1 Voluntary Emissions Performance Specifications and Star Rating for Improved Biomass Cookstoves

The minimum performance requirements in these Regulations does not cover emissions. However, Table 3.1 demonstrates voluntary star rating classification for $PM_{2.5}$ and CO, (adapted from the ISO voluntary performance targets for cookstoves based on laboratory testing: ISO/TR 19867-3:2018(E)), which could be used in marketing materials for improved biomass cookstoves.

Table 3.1: Voluntary Star Rating Classification for CO and $PM_{2.5}$

Star Rating	Emissions	
	CO (g/MJd)	$PM_{2.5}$ (mg/MJd)
5	≤ 3.0	≤ 5
4	≤ 4.4	≤ 62
3	≤ 7.2	≤ 218
2	≤ 11.5	≤ 481
1	>18.3	>1031

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The emission factor values (measurement units of mass per megajoule of useful energy delivered to the pot) are calculated by multiplying the emission rates by the assumed average cooking time and divided by the assumed required useful energy delivered for daily cooking needs (11 MJ). CO is measured in grams per megajoule delivered to the pot (g/MJd) and PM_{2.5} is milligrams per megajoule delivered to the pot (mg/MJd).

The emissions rate values refer to 'fugitive' emissions that are emitted directly into the kitchen. For unvented cookstoves (without chimney) total emissions are used for the emission rate values whereas for vented cookstoves (with chimney) usually most of the emissions are emitted to the exterior of the kitchen, hence only 'fugitive' emissions are measured.

3.2 Definition of Voluntary Emissions Star Rating Categories

The voluntary star rating categories for CO and PM_{2.5} shall be defined as in Table 3.2 (adapted from the ISO voluntary performance targets for cookstoves based on laboratory testing: ISO/TR 19867-3:2018(E)).

Table 3.2: Definition of Voluntary Star Rating Categories for CO and PM_{2.5}

Star Rating Category	CO	PM _{2.5}
Highest (5)	Improved biomass cookstoves under this category would give emissions that would result in kitchen CO concentration that meets the WHO 24-hour mean air quality guideline value of 7 mg/m ³ .	Improved biomass cookstoves under this category would give PM _{2.5} emission rate ^a that would result in kitchen indoor air quality that meets the WHO annual mean air quality guideline value of 10 mg/m ³ . This level of PM _{2.5} has been found to be associated with minimal adverse health risk, and has a Relative Risk (RR) ^b of 1.0 for child Acute Lower Respiratory Infections (ALRI).

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Intermediate (1-4)	<p>Improved biomass cookstoves that are 1-star for CO have been set to cover 90% of homes that would give emissions that would result in kitchen CO concentration at or below 230 mg/m³ during cooking events, a level associated with headache and impaired judgment at 2 to 3 hours from the start of exposure. At 1-star for CO, over 99.98% of homes are covered at or below 930 mg/m³ during cooking events. This concentration is associated with dizziness, nausea, and convulsions within 45 minutes, and would be insensible within 2 to 3 hours from start of exposure. The intermediate emission rate 2- to 4-star represent equal mathematical divisions between 1- and 5-star for the percentage of homes covered at 7 mg/m³ daily average CO concentration.</p>	<p>Intermediate emission rate stars have been set to achieve levels of indoor air quality that are equivalent to RR of 3.15 (1-star), 3.0 (2-star), 2.5 (3-star), and 1.5 (4-star), based on the Integrated Exposure Response (IER) function for child ALRI.</p>
Lowest (0)	<p>An emission rate higher than 1-star, observed with simple solid fuel cookstove technologies.</p>	<p>An emission rate higher than 1-star, observed with open fires and other simple solid fuel cookstove technologies.</p>

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^aEmission rate is mass of an air pollutant emitted per unit time.

^bRelative Risk (RR) is the risk of a disease experienced by an individual exposed to a higher level of a risk factor compared to the risk experienced by individuals exposed to a lower level of the risk factor. A RR of 1.0 implies no additional risk, while a RR of 1.5, 2.5 and 3.0 means one and a half, two and a half, and thrice the risk, respectively.

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THIRD SCHEDULE

THE LABEL

(regulations 3(1)(b)(iii), 9(1)(a)(i), 9(1)(d)(i) and 14(4)(b))

PART ONE

THE STANDARD LABEL

1.1 Label design for improved biomass cookstoves

The design of the label shall be in accordance with Figure 1.1 and shall include the information in the notes.

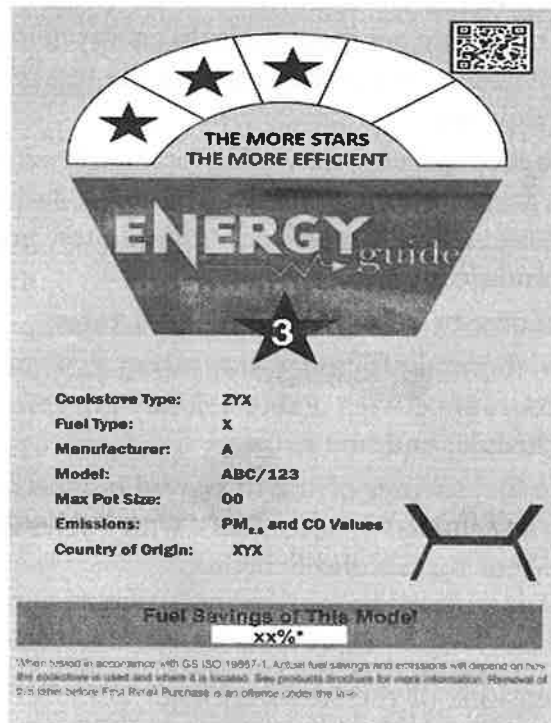


Figure 1.1: The Label for an Improved Biomass Cookstove

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Notes to Figure 1.1

The information to be included in the label are provided in the following notes:

- (i) the Quick Response Code;
- (ii) type of appliance;
- (iii) type of solid biomass fuel used by the appliance;
- (iv) the name or trade mark of the manufacturer;
- (v) the model identifier of the manufacturer;
- (vi) the maximum pot size the improved biomass cookstove can support, using the local aluminum pot sizes and volume in litres;
- (vii) the potential emission value for the release of PM_{2.5} measured in milligram per mega joules of energy delivered (mg/MJd) determined in accordance with the test procedures of the Standards;
- (viii) the potential emission value for the release of CO measured in gram per mega joules of energy delivered (g/MJd) determined in accordance with the test procedures of the Standards;
- (ix) country of origin of the manufacturer;
- (x) the thermal efficiency star rating shall be determined in accordance with Table 1.1 in Part One of the Second Schedule; and
- (xi) the fuel savings of the improved biomass cookstove shall be determined in accordance with Tables 2.1 or 2.2 in Part Two of the Second Schedule.

1.1 Printing

- (1) The dimensions of the standard label shall be as illustrated in Figure 1.2 and shall be placed visibly on the body of the improved biomass cookstove or packaging.

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- (2) Colours are to be used on the label in accordance with the following:
- all text shall be in black, gold, white or red as illustrated;
 - the background shall be gold;
 - all stars shall be in black; and
 - border line shall be in black.

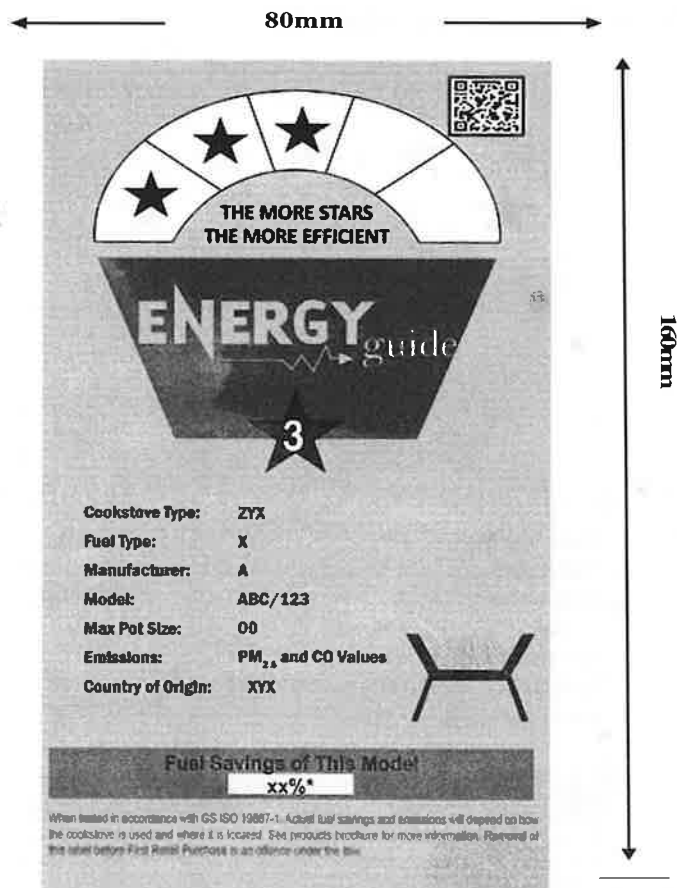


Figure 1.2: Label Dimensions

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**PART TWO
VOLUNTARY LABEL**

2.1 Voluntary Label Design for High Emissions Performing Improved Cookstoves

A green sticker with the text “low emissions, health benefits” shall be used in accordance with Figure 2.1 when the improved biomass cookstove achieves a five-star rating for PM_{2.5} and CO, in accordance with Table 3.1 in Part Three of the Second Schedule.

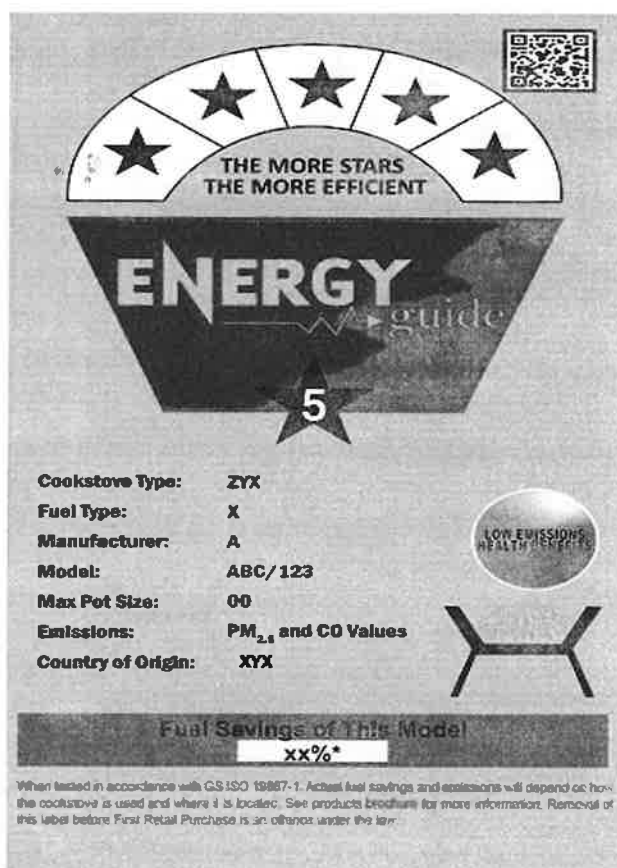


Figure 2.1: Voluntary Label for Cookstoves with Low Emissions

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FOURTH SCHEDULE

PRODUCT INFORMATION SHEET

(regulations 3(1)(b)(iv), 3(2), 5, 8(2)(b) and (c), 9(1)(c), 14(4)(b),(c),(d) and (e), 16(1), 16(2)(b), 20(b), 22(2)(c), 23(b)(iii) and 24(2)(a))

PART ONE

(regulations 8(2)(b), 9(1)(c), 16(1), 16(2)(b) and 20(b))

1. The information in the Product Information Sheet of the improved biomass cookstove shall, in addition to all information listed as notes to the label under the Third Schedule, include the information specified below. The information may be presented in a tabular form as in Table 1.1 in the order specified, covering all improved biomass cookstoves supplied by the same supplier.
 - (a) the name or trade mark of the supplier;
 - (b) the model identifier or number of the supplier;
 - (c) the type or category of improved biomass cookstove;
 - (d) the type of solid biomass fuel the improved biomass cookstove uses;
 - (e) the maximum capacity of the improved biomass cookstove, using the traditional aluminum pot sizes and volume in litres;
 - (f) the thermal efficiency star rating of the model as defined in the Second Schedule, expressed on a scale of 1 to 5 with 1-Star being the least efficient and 5-Star the most efficient;
 - (g) the fuel efficiency or savings based on thermal efficiency determined in accordance with the Second Schedule and expressed as per cent. The actual fuel efficiency will depend on how the improved biomass cookstove is used and where it is placed;
 - (h) the $PM_{2.5}$ emissions of the improved biomass cookstove determined in accordance with the test procedures of the Standard, expressed in mg/MJd;

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- (i) the CO emissions of the improved biomass cookstove determined in accordance with the test procedures of the Standard, expressed in g/MJd;
- (j) the safety score determined in accordance with the test procedures of the Standard;
- (k) if the model is produced to be assembled at final destination, this should be stated;
- (l) for improved biomass cookstoves in categories 3 and 4, source of electricity to power the fan for combustion;
- (m) net weight of the improved biomass cookstove;
- (n) overall dimensions of the improved biomass cookstove; and
- (o) the country of origin or manufacture.

Sample Product Information Sheet

2. The format of the Product Information Sheet presented in Table 1.1 may be used.

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Table 1.1: Sample Product Information Sheet

Name or trade mark of Supplier			
Model identifier of Supplier			
Category of Improved Biomass Cookstove (Please tick)			
<input type="checkbox"/> 1 – Natural draft domestic cookstove	<input type="checkbox"/> 2 – Natural draft institutional cookstove	<input type="checkbox"/> 3 – Forced draft domestic cookstove	<input type="checkbox"/> 4 – Forced draft institutional cookstove
Fuel used		Maximum pot size	
Performance parameters			
Thermal efficiency star rating	[5-Star to 1-Star]	Fuel savings	[%]
PM _{2.5} emission (mg/MJd)	[value]	CO emission (g/MJd)	[value]
Safety score	[value]		
Voluntary emissions Star rating			
PM _{2.5}	[5-Star to 1-Star]	CO	[5-Star to 1-Star]
Technical parameters			
State of product (please tick)	<input type="checkbox"/> Finished product	<input type="checkbox"/> To be assembled	
Power required to operate product	[yes/no]	Power source	[state]
Net weight (kg)	[value]		
Dimensions (cm)			
Height	[value]	Width	[value]
Country of manufacture	[state]		
Additional information			
Durability (years)	[value]		
Minimum duration of guarantee offered by manufacturer (months)	[value]		
Web link to manufacturer's website or the Renewable Energy Product Register, as may be determined by the Commission, where the information on the model of the improved biomass cookstove can be found			

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PART TWO

(regulation 5)

Types and Categories of Improved Biomass Cookstoves

The improved biomass cookstoves regulated under these Regulations shall be grouped under the following categories in Table 2.1:

Table 2.1: Categories of Improved Biomass Cookstoves

<i>Category</i>	<i>Description in product information sheet</i>
1	Natural draft domestic cookstove
2	Natural draft institutional cookstove
3	Forced draft domestic cookstove
4	Forced draft institutional cookstove

PART THREE

(regulation 8(2)(c))

Technical Documentation

The Technical Documentation referred to in regulation 8 shall include the following elements:

- (a) the information as specified in Part One of this Schedule;
- (b) the address and contact details of the supplier;
- (c) a brief description of the improved biomass cookstove, for purposes of identification;
- (d) relevant drawings on the main design features of the model and parameters of the improved biomass cookstove which affect its thermal efficiency, emissions and safety;

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- (e) reports of relevant measurement tests carried out by an accredited independent laboratory in compliance with the Standards;
- (f) details of calculations, extrapolations and tests carried out to verify the accuracy of the calculations;
- (g) the installation and operating instructions;
- (h) the period within which the model of the improved biomass cookstove was manufactured; and
- (i) where applicable, a declaration of identity between models of different manufacturers.

PART FOUR

(regulation 22(2)(c))

Mail Order and other Distance Selling

1. A supplier shall ensure that
 - (a) improved biomass cookstoves offered for sale, hire or hire-purchase, where the end user cannot be expected to see the cookstove displayed, are marketed with the Product Information Sheet.
 - (b) mail order catalogues and other marketing related communication shall contain the following specified information, in the order below:
 - (i) the fuel used by the improved biomass cookstove in accordance with paragraph *(d)* under Part One of the Fourth Schedule;
 - (ii) maximum pot capacity of the improved biomass cookstove in accordance with paragraph *(e)* under Part One of the Fourth Schedule;
 - (iii) thermal efficiency star rating of the model in accordance with paragraph *(f)* under Part One of the Fourth Schedule;

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- (iv) fuel efficiency or savings in accordance with paragraph (g) under Part One of the Fourth Schedule;
 - (v) the potential PM_{2.5} emissions to be released by the improved biomass cookstove in accordance with paragraph (h) under Part One of the Fourth Schedule;
 - (vi) the potential CO emissions to be released by the improved biomass cookstove in accordance with paragraph (i) under Part One of the Fourth Schedule; and
 - (vii) safety score in accordance with paragraph (j) under Part One of the Fourth Schedule.
2. The size and font in which all the information referred to in paragraph 1 is printed shall, be legible.

PART FIVE

(regulation (3)(2), 14(4)(c), (d) and (e) and 23(b)(iii))

Information to be provided in audio advertisements, visual advertisements, in technical promotional material, in distance selling, except distance selling on the internet

1. In audio advertisements, for the purposes of ensuring conformity with the requirements laid down in subregulation (2) of regulation 3, the thermal efficiency star rating of the model or models of improved biomass cookstove being advertised and the range of thermal efficiency star ratings available on the market shall be stated in the advertisement.
2. In visual advertisements, for the purposes of ensuring conformity with the requirements laid down in subregulation (2) of regulation 3, the thermal efficiency star rating and the range of thermal efficiency star rating available on the label shall be shown as specified in paragraph 5 of this Part.

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3. In technical promotional material, for the purposes of ensuring conformity with the requirements laid down in subregulation (2) of regulation 3 the thermal efficiency star rating and the range of thermal efficiency star rating available on the label shall be shown as set out in paragraph 5 of this Part.
4. Any paper-based distance selling shall show the thermal efficiency star rating and the range of thermal efficiency star rating available on the label as set out in paragraph 5 of this Part.
5. The thermal efficiency star rating and the range of thermal efficiency star rating shall be shown, as indicated in Figure 5.1, with
 - (a) an arrow, containing the letter of the thermal efficiency rating in hundred per cent white, Calibri Bold and in a font size at least equivalent to that of the price, when the price is shown;
 - (b) the colour of the box shall be gold;
 - (c) the range of available thermal efficiency star ratings in hundred per cent black; and
 - (d) the size shall be such that the box is clearly visible and legible.
6. The number embedded in the black star corresponding with the thermal efficiency star rating of the improved biomass cookstove shall be in hundred per cent white and positioned in the center of the black star in the box, with a border of 0.5 pt in hundred per cent black placed around the box and the star showing the thermal efficiency star rating.
7. By way of derogation, if the visual advertisement, technical promotional material or paper-based distance selling is printed in monochrome, the box can be in monochrome in that visual advertisement, technical promotional material or paper-based distance selling.

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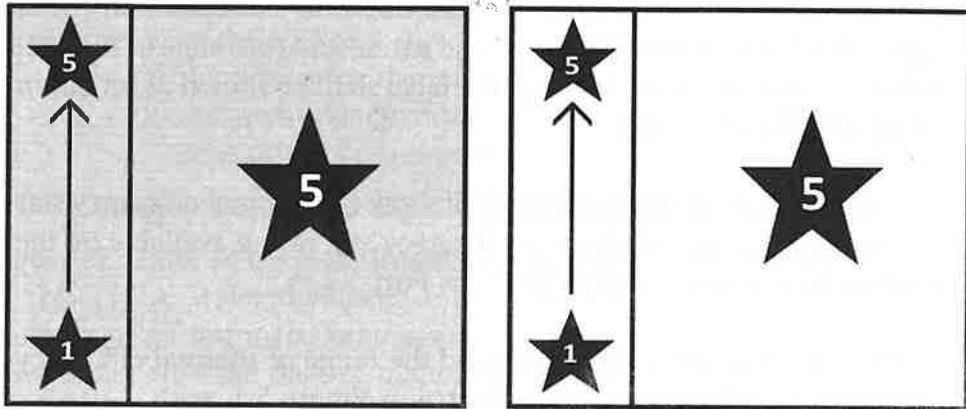


Figure 5.1: Coloured/Monochrome Star Rating with Range of Thermal Efficiency Ratings Indicated

8. Telemarketing-based distance selling shall specifically inform the customer of the thermal efficiency star rating of the improved biomass cookstove and of the range of thermal efficiency star ratings available on the label, and that the customer can access the full label and the Product Information Sheet through a free access website, the public part of the Renewable Energy Product Register of the Commission or by requesting a printed copy.
9. For all the situations mentioned in paragraphs 2 to 4 and paragraph 8, it shall be possible for the customer to obtain, on request, a printed copy of the label and the Product Information Sheet.

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PART SIX
(regulation 24(2)(a))

Information to be provided in the case of distance selling through the internet

1. The appropriate label made available by suppliers in accordance with the Third Schedule shall be shown on the display mechanism in proximity to the price of the improved biomass cookstove.
2. The size shall be such that the label is clearly visible and legible and shall be proportionate to the dimensions specified in the Third Schedule.
3. The label may be displayed using a nested display, in which case the image used for accessing the label shall comply with the specifications laid down in paragraph 5 of this Part.
4. If nested display is applied, the label shall appear on the first mouse click, mouse roll-over or tactile screen expansion on the image.
5. The image used for accessing the label in the case of nested display, as indicated in Figure 6.1, shall
 - (a) be a box in gold colour with a black star and an embedded number corresponding to the thermal efficiency star rating of the improved biomass cookstove on the label;
 - (b) indicate the thermal efficiency star rating of the improved biomass cookstove in the box in hundred per cent black, Calibri Bold and in a font size equivalent to that of the price;
 - (c) have the range of available thermal efficiency classes in hundred per cent black; and
 - (d) have one of the following two formats, and its size shall be such that the box is clearly visible and legible. The number showing the thermal efficiency star rating shall be positioned

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in the centre of the box, with a visible border in hundred per cent black placed around the box and the number of the thermal efficiency star rating:

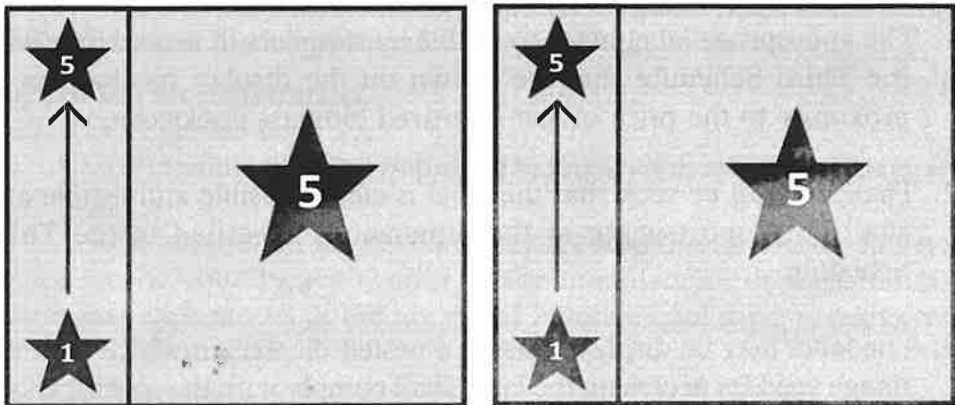


Figure 6.1: Coloured Star Rating with Range of Thermal Efficiency Ratings Indicated

6. In the case of a nested display, the sequence of display of the label shall be as follows:
 - (a) the image referred to in paragraph 5 of this Part shall be shown on the display mechanism in proximity to the price of the product;
 - (b) the image shall link to the label specified in the Third Schedule;
 - (c) the label shall be displayed after a mouse click, mouse roll-over or tactile screen expansion on the image;
 - (d) the label shall be displayed by pop up, new tab, new page or inset screen display;
 - (e) for magnification of the label on tactile screens, the device conventions for tactile magnification shall apply;
 - (f) the label shall cease to be displayed by means of a close option or other standard closing mechanism; and

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- (g) the alternative text for the graphic, to be displayed on failure to display the label, shall be the thermal efficiency rating of the improved biomass cookstove in a font size equivalent to that of the price.
- 7. The electronic Product Information Sheet made available by suppliers in accordance with subregulation (2) of regulation 24 shall be shown on the display mechanism in proximity to the price of the product. The size shall be such that the Product Information Sheet is clearly visible and legible. The Product Information Sheet may be displayed using a nested display or by referring to the product database, in which case the link used for accessing the Product Information Sheet shall clearly and legibly indicate 'Product Information Sheet'. If a nested display is used, the Product Information Sheet shall appear on the first mouse click, mouse roll-over or tactile screen expansion on the link.

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FIFTH SCHEDULE

VERIFICATION PROCEDURE FOR MARKET SURVEILLANCE
(regulation 31(2))

1. The verification tolerances set out in this Schedule relate only to the verification of the declared parameters by the Commission and the Standards Authority and shall not be used by the supplier as an allowed tolerance to establish the values in the technical documentation.
2. The values and classes on the label or in the Product Information Sheet shall not be more favourable for the supplier than the values reported in the technical documentation.
3. When verifying the compliance of a product model with the requirements laid down in these Regulations, the Commission and the Standards Authority shall apply the following procedure:
 - (a) The Commission and the Standards Authority shall verify one single unit of the model; and
 - (b) The model of the improved biomass cookstove shall, be considered to comply with the provisions set out in Table 1.1 of the Second Schedule, if:
 - (i) the values given in the technical documentation pursuant to the Second Schedule or declared values, and, where applicable, the values used to calculate these values, are not more favourable for the supplier than the corresponding values given in the test reports;
 - (ii) the values published on the label and in the Product Information Sheet are not more favourable for the supplier than the declared values, and the indicated thermal efficiency star rating and emissions values are not more favourable for the supplier than the rating determined by the declared values; and

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- (iii) when the Commission and the Standards Authority test a unit of the model, the determined values or the values of the relevant parameters as measured in testing and the values calculated from these measurements comply with the respective verification tolerances as given in Table 5.1.
4. If the results referred to in subparagraphs (a) and (b) of paragraph 3 are not achieved, the model and all equivalent models shall be considered not to comply with these Regulations.
5. If the result referred to in subparagraph (b) of paragraph 3 is not achieved, the Commission and the Standards Authority shall randomly select three additional units of the same model for testing. As an alternative, the three additional units selected may be of one or more equivalent models.
6. The model shall be considered to comply with the applicable requirements if, for these three units the arithmetic mean of the determined values complies with the respective tolerances given in Table 5.1.
7. If the result referred to in paragraph 5 is not achieved, the model and all equivalent models shall be considered not to comply with these Regulations.
8. The Commission and the Standards Authority shall provide all relevant information to all the enforcement authorities and the public without delay, once a decision has been taken on the non-compliance of the model according to paragraphs 4 and 7.
9. The performance of the improved biomass cookstove shall be determined in accordance with the test procedures in the First Schedule.

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10. The Commission and the Standards Authority shall use the measurement and calculation methods specified in the Second Schedule.

11. The Commission and the Standards Authority shall only apply the verification tolerances specified in Table 5.1 and shall only use the procedure specified in paragraphs 1 to 6 for the requirements referred to in this Schedule. For the parameters in Table 5.1, no other tolerances, such as those set out in Standards or in any other measurement method, shall be applied.

Table 5.1: Verification Tolerances for Measured Parameters

Parameter	Verification Tolerances
Thermal efficiency	The measured value shall not be less than the rated value (*) by more than 3%.
Fuel savings	The measured value shall not be less than the rated value by more than 14%.
PM _{2.5} emission	The measured value shall not be less than the rated value by more than 15%
CO emission	The measured value shall not be greater than the rated value by more than 15%.
Safety score	The measured value shall meet the rated value.
Durability	The measured value shall not be greater than the rated value by more than 6 months.
(*) 'Rated value' means a value that is declared by the manufacturer.	

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HON. DR. MATTHEW OPOKU PREMPEH

Minister responsible for Energy

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