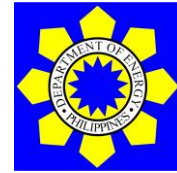




DEPARTMENT OF TRADE AND INDUSTRY
AND
DEPARTMENT OF ENERGY
Joint Administrative Order No. _____
_____, 2013



**IMPLEMENTING GUIDELINES FOR THE STANDARD ON ENERGY EFFICIENCY FACTOR AND LABELING OF CLOTHES WASHING MACHINES
PNS 396 Part 3 Series of 2013**

Pursuant to Republic Act No. 4109, Republic Act No. 7394, Republic Act No. 7638, Executive Order No. 913, series of 1983, Executive Order No. 101, series of 1967, DTI Department Order No. 48, series of 2008, DTI Department Administrative Order No. 2, series of 2007, DTI Department Administrative Order No. 7, series of 2006, DTI Department Administrative Order No. 4, series of 2008, DTI Department Administrative Order No. 5, series of 2008 and PNS 396 Series of 2013, "Household Appliances – Energy efficiency factor (EEF) and labeling requirements Part 3: Clothes Washing Machine", the following revised guidelines are hereby issued for the information and guidance of all concerned and for compliance by all manufacturers, importers, dealers, agents and other key stakeholders.

1 GENERAL

These guidelines specify the rules and regulations in the implementation of PNS 396 Series of 2013, *Household appliances - Energy efficiency factor (EEF) and labeling requirements Part 3: Clothes Washing Machine*.

The following documents attached hereto shall be deemed to form an integral part of the Guidelines:

- 1.1 Annex A: Specific Guidelines for the Conduct of Test
- 1.2 Annex B: Performance Requirements
- 1.3 Annex C: Determination of EEF Classification

2 SCOPE

These Implementing Guidelines, herein after refer as Guidelines, covers automatic and manual clothes washing machines with capacity from 5 to 10 kg that operates using electricity (rated up to 230 volts and 60 Hz) as main power source.

3 DEFINITION OF TERMS

For the purpose of these guidelines, the following definitions shall apply:

- 3.1 **Base Model** - One whose main component together with the design are distinct as to capacity, electrical ratings, drum size, other functions, etc.
- 3.2 **BPS-recognized testing laboratory** – A body authorized by BPS to conduct product tests under the scope of DAO 4:2008 and DAO 05:2008.
- 3.3 **Clothes Washing Machine** - as defined in PNS IEC 60456:2013. It is basically an encased assembly designed as a unit, designed for cleaning and rinsing of textile

using water which may also have a means of extracting excess water from the textile.

- 3.4 Dealer/ Retailer** - An entity engaged in the sale of clothes washing machine.
- 3.5 Downgrading of claims** – a decreased of value of any/or all of the claimed ratings to comply with the requirements of standard (PNS 396-2:2013) based on the result of performance testing.
- 3.6 Energy Efficiency Classification** – the classification based on the rated EEF of the particular clothes washing machine designated by the number of stars in the energy labels, the more stars means more energy efficient.
- 3.7 Energy Efficiency Factor (EEF)** – refers to the ratio of the capacity of the clothes washing machine, in kg, to the energy consumption, in kWh per cycle, as determined by PNS 396-3:2013.
- 3.8 Generic Model** – refers to a range of models similar to the base model where all the models have the same relevant physical characteristics, construction, system design, cooling capacity, power input, efficiency rating, and other performance characteristics.
- Note:* Any variation from the base models shall have no effect on the performance and energy efficiency.
- 3.9 Import Commodity Clearance (ICC)** - A document issued by DTI attesting that the imported clothes washing passed the requirements of the specific standard and is governed by DAO 5, Series of 2008.
- 3.10 Importer** - An entity engaged in the importation of clothes washing machine.
- 3.11 Licensee** - Manufacturer, assembler or importer issued a PS Certification Mark License/ Import Commodity Clearance.
- 3.12 Manufacturer/ Assembler** - An entity engaged in the manufacture or assembly of clothes washing machine.
- 3.13 Minimum Energy Performance Standard (MEPS)** - A performance standard which prescribes a minimum level of energy efficiency factor for clothes washing machine as stated in these Guidelines.
- 3.14 Model** - All units within the manufacturers' or importers' product line which are identical except for serial number or similar identifying marks.
- 3.15 Production Unit** - A clothes washing machine which is produced or assembled using the manufacturer's normal production processes for units to be distributed in commerce.
- 3.16 PS Certification Mark License** - Document issued by BPS to a manufacturer/ assembler authorizing its use of mark of conformity on its products in accordance with the rules of the certification scheme.
- 3.17 Test Sample** - A clothes washing machine picked out at random from the batch.
- 3.18 List of Acronyms**
- 3.18.1 **BPS** – Bureau of Product Standards
 - 3.18.2 **DOE** – Department of Energy
 - 3.18.3 **DTI** – Department of Trade and Industry

- 3.18.4 **DTI-RO/PO** – DTI Regional Office/Provincial Office
- 3.18.5 **ERTLS** – Energy Research and Testing Laboratory Services
- 3.18.6 **LATL** – Lighting and Appliance Testing Laboratory

4 APPLICATION FOR PS OR ICC MARK

- 4.1 Manufacturers and assemblers of clothes washing machine shall apply for the Philippine Standard (PS) Quality Certification License with DTI-BPS/RO/PO. Requirements and procedures in processing of PS application shall be governed by DAO 4:2008 and its implementing rules and regulations.
- 4.2 Importers of clothes washing machine shall apply for the Import Commodity Clearance (ICC) on a per shipment per bill of lading basis with the nearest DTI-BPS/RO/PO. Requirements and procedures in processing of ICC application shall be governed by DAO 5:2008 and its implementing rules and regulations.

5 ISSUANCE OF LICENSE TO USE THE PS CERTIFICATION MARK

- 5.1 A license to use the PS Quality Certification Mark shall be issued by DTI-BPS to manufacturers/assemblers capable of producing clothes washing machine conforming to the requirements of PNS 396 Part 3:2013, *Energy Efficiency Factor and Labeling Requirement for Clothes Washing Machine*, terms and conditions of the license shall be governed by the provisions of Department Administrative Order No. 4, Series of 2008, *The New Rules and Regulations Concerning the Philippine Standards (PS) Quality and/ or Safety Certification Mark Scheme of the Bureau of Product Standards (BPS)*.

6 ISSUANCE OF IMPORT COMMODITY CLEARANCE

- 6.1 An ICC shall be issued by DTI-RO/PO to importers whose clothes washing machine conform to the requirements of PNS 396 Part 3:2013, *Energy Efficiency Factor and Labeling Requirement for Clothes Washing Machine*, terms and conditions of the ICC shall be governed by Department Administrative Order No. 5, Series of 2008, *The New Rules and Regulations Concerning the Issuance of the Import Commodity Clearance Under the Product Certification Mark Scheme of the Bureau of Product Standards (BPS)*.
- 6.2 The requisite ICC will be issued per shipment per bill of lading or airway bill as required in new DTI-DAO 5:2008.

7 AUTHORITIES AND RESPONSIBILITIES OF THE DTI AND DOE-ERTLS

7.1 Role of the DTI

In addition to the duties specified in DTI-DAO 4:2008 and DTI-DAO 5:2008, DTI shall:

- 7.1.1 Prepare a minimum scheme of supervision and control that each assembler and manufacturer must implement in its production operations to ensure consistent conformity of its product to the requirements of the standard.
- 7.1.2 Draw test sample of clothes washing machine from manufacturers/importers warehouse or market place.
- 7.1.3 Inform the licensees of any changes in the standard, and its corresponding implementing guidelines
- 7.1.4 Maintain and disseminate a registry of PS licensees and importers of clothes washing machine, to be posted at the DTI website.

- 7.1.5 Coordinate with the DTI-RO/PO in the implementation of these guidelines, especially in the conduct of factory and product audits relative to the DTI-BPS' Product Certification Mark Schemes and conduct of inspection/inventory at the declared warehouse of the importers of clothes washing machine.
- 7.1.6 Conduct final evaluation of all factory and product assessment reports and other relevant recommendation of the DTI-RO/PO;
- 7.1.7 Issue, deny, suspend or revoke licenses based on findings under clause 6.1.5;
- 7.1.8 Coordinate with DTI-RO/PO and the DTI Office of Legal Affairs in identifying and implementing appropriate legal action against manufacturers, assemblers, importers, retailers, distributors and dealers violating the above-stated laws, rules and regulations, department administrative orders, these guidelines, the requirements of the specific standard, its implementing memoranda and circular.

7.2 Role of DOE-ERTLS

As the official testing laboratory for energy performance testing of clothes washing machine, DOE-ERTLS shall:

- 7.2.1 Set up and maintain the necessary testing facilities for the energy performance testing of clothes washing machine in accordance with the relevant PNS;
- 7.2.2 Take the lead in ensuring the integrity of testing for certification of clothes washing machine;
- 7.2.3 Conduct the testing of clothes washing machine as stated/ requested in the BPS test request form.
- 7.2.4 Validate the energy labels and maintain its credibility.
- 7.2.5 Responsible for the issuance of control number series, validation of the prototype energy label for compliant clothes washing machine;
- 7.2.6 Verify/ review the data for change of rating if it conform/ comply with the set standard tolerances.
- 7.2.7 Inspect or verify the declared generic models.
- 7.2.8 Maintain and periodically update the list of certified clothes washing machine.
- 7.2.9 Prepare/ upgrade the implementing guidelines in coordination with DTI-BPS in consultation with industry players;
- 7.2.10 Coordinate closely with DTI-BPS regarding the dissemination of these guidelines to manufacturers/ importers, DTI-RO/PO.
- 7.2.11 Identify testing laboratory and delegate representatives who will supervise the testing activities requested by manufacturers and importers.
- 7.2.12 Issue statement of account on the testing fee and other services rendered relevant to the energy labeling program.

8 PRODUCT ASSESSMENT

8.1 Product Testing

8.1.1 The test method for certification testing shall be based on the standard conditions specified in PNS IEC 60456:2013 and its future amendment.

There shall be no attempt to utilize the results of certification testing as a research and development purposes or with other similar purposes.

8.1.2 All room air conditioners covered by this standard shall comply with all the performance requirements specified in clause 8.3 of these implementing guidelines, with the applicable/specific requirements of PNS 240/ ISO 5151, and with the other relevant regulations.

8.1.3 Electrical ratings shall be tested at a standard test voltage of 230V, 60Hz, single phase.

8.1.4 The official testing laboratory for all clothes washing machine samples shall be the DOE-LATL.

However, manufacturer or importer may opt, with the approval of DTI-BPS and DOE, to send the test samples recognized by DTI-BPS.

Still, DTI and DOE shall have the prerogative of drawing samples from actual production line or actual shipment for confirmation testing.

8.1.5 DTI-BPS recognized testing laboratories shall directly submit to DTI-BPS the original copy of the laboratory test report. DTI-BPS in turn shall furnish the DOE a copy of the report.

8.1.6 Prior to testing, there shall be no preparation, modification or adjustment in any manner on a test sample and no special quality control, testing or assembly procedure on a test sample, or in any parts and sub-assemblies thereof, that is not normally performed during production and assembly.

8.1.7 The test laboratory can refuse to conduct the necessary performance test on the test sample or advance sample for the following reasons;

If the sample,

- Is not functional;
- Does not have rating specifications according to Clause 4.1 of PNS 396-3:2013;
- Has no request for test from DTI-BPS/RO/PO or BPS-recognized inspection bodies;
- Has been previously tested;
- Has rated EER below the MEPS; and
- Other requirements stated in this guidelines.

The laboratory shall submit to DTI-BPS, copy furnish the manufacturer/importer, a report stating the reason for rejection.

8.1.8 All laboratory test results except those needed in the energy label shall be held strictly confidential by the DOE, DTI-BPS and concerned testing laboratory. Original copies of the test report shall be submitted to DTI-BPS

which in turn shall furnish the concerned room air conditioners manufacturers/ importer with a copy.

- 8.1.9 After the unit has been tested, it will be returned to the manufacturer/ importer. The DTI-BPS, DOE, DTI-RO/PO, or the DTI-BPS accredited/ recognized testing laboratory shall not be liable for whatever damage sustained by the test samples during transport and testing.

8.2 Sampling of Test Units

- 8.2.1 Clothes washing machine manufacturer/ importer shall send a written notice to DTI-BPS or DTI RO/PO specifying base model and generic model.

- 8.2.2 For clothes washing machine manufacturers, one unit of the base model shall be taken at random from the production line or warehouse for testing.

For new models the manufacturers may opt to submit an advance (or engineering) samples prior to actual production for the purpose of facilitating issuance of PS license.

However, DTI-BPS/RO/PO and DOE-LATL have the prerogative to draw samples from the actual production line to verify and/or test if the actual mass production units have the same specification with the tested advance samples.

- 8.2.3 For clothes washing machine importers, one unit of every base model shall be taken at random directly from the customs or importers warehouse by a duly authorized DTI-BPS/RO/PO representative for testing.

For new models the importer may opt to submit a test sample in advance for verification of claimed ratings and for the purpose of facilitating issuance of ICC.

However, DTI and DOE have the prerogative to draw sample from the actual shipment to verify and/or test if the actual shipment units have same specification with the tested advance sample.

- 8.2.4 DTI-BPS or DOE has the option to undertake sampling taken either from the market or from the factory to verify consistency of conformance to the standard.

- 8.2.5 Sample(s) packed in the presence of DTI-BPS/RO/PO or DOE designated representative(s) shall be shipped within two (2) working days to the DOE laboratory (Lighting and Appliance Testing Laboratory – LATL) by the manufacturers/importers. Acknowledgment of test sample(s) shall be issued by DOE.

8.3 Downgrading and Upgrading of Claims

- 8.3.1 Downgrading the claimed rating

8.3.1.1 Manufacturer/importer has the option to downgrade the claimed ratings to comply with the requirements of the standard based on the result of the first test.

8.3.1.2 Downgrading is also applicable to advance sampling.

8.3.1.3 New claims shall conform to the tolerances specified in Annex B and shall be arithmetically consistent with the formula stated in PNS 396-1:2007.

8.3.2 Upgrading of claimed ratings

8.3.2.1 Manufacturer/importer has the option to upgrade the claimed ratings of their products provided that:

8.3.2.1.1 They shall submit formal declaration of new claims to DTI-BPS and DOE.

8.3.2.1.2 The new ratings shall be verified from the test results of at most three (3) samples randomly drawn from the actual shipment/production.

Note: Test samples drawn for this procedure shall bear the new nameplate rating.

8.3.2.1.3 Two (2) out of three (3) samples shall comply with the tolerance requirements provide in Annex B.

8.3.2.1.4 Advance sample shall not be considered among the three samples for upgrading purposes.

Note: Procedural requirements for new claims in Clause 13 shall be followed.

8.4 Inspection of Generic Models

8.4.1 The manufacturers/importers shall declare in writing submitted to DTI-BPS if there are generic models of existing base models.

8.4.2 Technical specifications comparing the base and generic models shall be submitted to DTI-BPS.

DOE-LATL and DTI-BPS shall preserve the confidentiality of submitted technical specifications.

8.4.3 Generic models for inspection shall be drawn by DTI-BPS in manufacturer's/importer's warehouse.

8.4.4 The DOE will inspect the generic models at DOE-LATL or manufacturer's/importer's site.

In case of doubt, DOE shall require the inspected units be subject to performance testing.

Note: The client shall submit a request for testing issued by BPS.

8.4.5 DOE shall submit the inspection report to DTI-BPS copy furnish the manufacturer/importer.

8.5 Exemption to Labeling Requirements

8.5.1 Manufacturer and importers shall submit written request and technical documents to DTI-BPS for exemption to labeling requirements.

8.5.2 Requests for exemption to labeling requirements shall be subjected to joint review and approval of DOE and DTI-BPS.

8.5.3 DOE may conduct inspection to verify claims for exemption. DOE shall submit official report to DTI-BPS copy furnished the manufacturer and importer.

9 VALIDITY OF TEST RESULTS AND ANNUAL ASSESSMENT TESTING

9.1 Validity of Test Results

9.1.1 The test results shall be valid and effective for one year from the date of issuance of test report.

However, within the validity period, it shall be the prerogative of DTI and DOE to draw and test sample product from actual production/shipment.

9.1.2 Special cases shall comply under the provision of Clause 14 of DTI-DAO 5:2008 and shall be approved by DTI and DOE.

9.2 Annual Assessment Testing

9.2.1 Certified clothes washing machine models shall be subjected to annual assessment testing. Reference date is as stated in clause 9.1.1.

9.2.2 DTI-BPS or its duly authorized representatives (e.g. DTI-RO/PO) shall notify the manufacturer on the schedule of annual assessment testing.

Test sample shall be drawn from actual shipment and production. Advance sample is no longer applicable for annual assessment testing.

9.2.3 In case that the annual assessment testing is delayed due to special cases, DOE and DTI shall issue separate guidelines for this purpose.

10 VALIDATION OF ENERGY LABELS

10.1 The validation of energy labels shall follow the DOE Guidelines for the Validation of Energy Labels for Household Appliances.

10.2 After obtaining the PS license or ICC, air conditioner manufacturer/ importer shall submit copy of the license to secure control numbers from the DOE.

11 COMPLIANCE AND RESPONSIBILITIES OF THE LICENSEE

11.1 Compliance

When the results of factory and/or product assessments show conformity to the requirements specified in these guidelines;

- PS Quality Certification Mark License is issued by DTI-BPS to the manufacturer and/or assembler for the model(s) tested.
- Import Commodity Clearance (ICC) is issued by DTI-BPS/RO/PO to the importer for the model(s) tested.

11.2 Responsibilities of the PS Licensee

11.2.1 Every licensee shall ensure that his product, for which a license has been issued, conforms at all times to the requirements of PNS 396 Part 3:2013, *Energy Efficiency Factor and Labeling Requirement for Clothes Washing Machine*.

11.2.2 Mention or an indication must be made in advertisements and other promotional materials of the licensee that its clothes washing machine are certified under DTI-BPS' PS Certification Mark Scheme.

11.2.3 The licensee shall maintain at least three years the complete records of system of control, including inspection and testing, for the purpose of establishing, to the satisfaction of DTI-BPS, that such system of control is being consistently maintained in accordance with the minimum "Scheme of

Supervision and Control". All records on demand shall be made available for evaluation by the DTI-BPS duly authorized representatives.

11.2.4 The licensee shall pay all costs of testing and certification.

11.2.5 The licensee shall affix the PS Certification Mark on every certified clothes washing machine unit and packaging/box as specified in DTI-DAO 4:2008.

11.3 Responsibilities of ICC Holders

11.3.1 Responsibilities of importers issued with ICC for their products shall be in accordance with DTI-DAO 5:2008.

12 NON-COMPLIANCE

12.1 Two units of the base model must have been tested by DOE before a declaration can be made that a rating for all models derived from that base model does not comply with the standard.

However, clothes washing machine manufacturer/importer may opt to downgrade their claimed ratings after the first test if found non-compliant provided the test sample complies with the required MEPS.

12.2 If in the determination of DTI-BPS and DOE that both tests failed to conform to the requirements of the specific standard:

12.2.1 The manufacturer shall be advised by DTI-BPS, copy furnished DOE-ERTLS, to undertake corrective measures on the remaining products at warehouse/factory site. Measures undertaken shall be submitted to DTI/BPS and DOE/ERTLS as prescribed in DTI-DAO 4:2008.

12.2.2 The importers shall be advised by DTI-BPS to destroy all import shipments under the supervision of DTI-BPS/RO/PO or re-export the products to the country of origin as prescribed in DTI-DAO 5:2008.

12.2.2 In cases where the clothes washing machine units are already in the market, the manufacturer/importer shall recall all the units from its dealers and post an ad in two leading newspapers not smaller than half page advising those who had already bought the particular model to return the unit to the dealer where the purchase was made.

12.2.3 Upon receipt of notice from DTI-BPS/RO/PO of withdrawal/ cancellation/ denial of PS Mark/ICC license, the manufacturers/importer shall not affix the energy label/nameplate or the PS/ICC Mark to any clothes washing machine and shall make no further reference to DTI-BPS PS Quality and/or Safety Mark or ICC Mark.

12.2.4 Only after reassessment and subsequent product compliance shall the manufacturer or importer be allowed by DTI-BPS to market its product.

13 PROCEDURES FOR CHANGING RATINGS

13.1 The clothes washing machine manufacturer/importer shall:

13.1.1 Within fifteen (15) days from receipt of written notice from DTI-BPS that the capacity and EEF rating has been misstated:

- 13.1.1.1 Revise the stated claims in accordance with DTI-BPS recognized laboratory's test results and submit documents of the revised claims to DTI-BPS, copy furnished DOE;
 - 13.1.1.2 Give written notice of the revised claims to all distributors or others in the line of distribution, including private brand owners, who are responsible for sales to dealers or other retail outlets; and furnish copies of each notice simultaneously to DTI-BPS and DOE-ERTLS.
 - 13.1.2 Within thirty (30) days from receipt of written notice from DTI-BPS, provide new label and nameplate indicating revised data for all concerned models.
 - 13.1.2.1 Immediately revise all literature (such as, but not limited to, specification sheets, full line folder, or any other sales promotion and/or advertising materials) intended for potential consumers; copies submitted to DTI-BPS and DOE-ERTLS;
 - 12.1.2.2 In addition, the following shall also be undertaken by concerned manufacturer/importer:
 - 12.1.2.2.1 Re-label the packaging of clothes washing machine manufacturer's/importer's inventories with revised data prior to shipment/sale.
 - 13.1.2.2.2 Supply labels with revised data to distributors for placement on cartons on distributor's and dealer's inventories.
 - 13.1.2.2.3 Send, within thirty (30) days, a letter to DTI-BPS with copy to the DOE indicating that action required in Clauses 13.1.2.2.1 and 13.1.2.2.2 is under way.
- Failure to comply with the provisions stated above after having been advised to do so by the DTI-BPS shall be grounds for withdrawal/cancellation of PS Mark license and withdrawal/cancellation of ICC.

13.2 Voluntary Changes in Ratings

- 13.2.1 Manufacturers/importers shall not change the ratings of any model unless there is written approval by DTI-BPS and DOE.
- 13.2.2 Changes in ratings which are the result of changes in major component parts (i.e. compressor) of a previously certified model require change in model designation. Otherwise, change in model designation is not required.
- 13.2.3 All changes in ratings shall be supported by valid test results from DTI-BPS recognized laboratories.

14 CHALLENGE TEST

- 14.1** Manufacturer who has fully and properly tested a sample unit of another manufacturer in accordance with the standard and tolerances provided in these Guidelines, and has concluded there from that the certified ratings are misstated, may challenge, provided that:

- 14.1.1 A detailed written report giving the results of the test is forwarded to DTI-BPS; and
- 14.1.2 Request DTI-BPS to get another set of sample unit of the model in question for testing by DOE-LATL.
- 14.2** If the challenge is not upheld, all costs in connection with or incidental to the test shall be paid by the challenging air conditioner manufacturer.
- 14.3** If the challenge is upheld, all costs in connection with or incidental to the test shall be paid by the challenged air conditioner manufacturer and the procedure for noncompliance shall be observed.

15 MARKET SURVEILLANCE

- 15.1** DTI-BPS/RO/PO and/or DOE shall conduct at any time monitoring and inspection of air conditioning units in the market for conformance. Manufacturer, importers, retailers, distributors and dealers found selling clothes washing machine without the required energy label shall be subjected to appropriate sanctions.
- 15.2** Air conditioner units suspected of not conforming to the prescribed energy standards shall be subjected for testing, in accordance with applicable rules and regulations. Testing fees shall be burdened by the manufacturer/importer of the clothes washing machine in question.
- If found not conforming, manufacturer, importer retailers, distributors and dealers shall be subjected to appropriate sanctions

16 SUNDRY PROVISIONS

- 16.1** Any changes in these Guidelines shall be done jointly by DTI and DOE.
- 16.2** Any non-legal/technical conflict arising from the implementation of these guidelines shall be resolved jointly by DTI and DOE.

17 EFFECTIVITY

- 17.1** DTI-BPS shall issue a timetable for implementation of these implementing guidelines.

Approved by:

PEDRO VICENTE C. MENDOZA
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Department of Trade Industry

RAQUEL S. HULIGANGA
Director,
Energy Research and Testing Laboratory Services
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Date: _____, 2013

ANNEX A

Specific Guidelines for the Conduct of Test and Inspection

The following are specific guidelines related to the performance testing of clothes washing machine samples:

A.1 Testing

A.1.1 All requirements of under Clause 8.1.7 shall applies prior testing of sample.

A.1.2 For the purpose of energy performance testing, all treatments of the test load prior to a test series and all washing machine test runs in accordance with PNS 396-3:2013 shall use *soft water* in accordance with PNS IEC 60456:2013.

A.1.3 Installation of speed sensors and temperature probes to unit-under-test shall not affect the performance of the appliance.

A.1.4 Testing of Automatic Clothes Washing Machine

A.1.4.1 Programme to be used for automatic clothes washing machine testing shall be in accordance with the manufacturer's instructions, provided that the program selected is intended for the similar purpose when compared to the programme on the reference washing machine. Refer to Annexes E and F of PNS IEC 60456 for guidance.

A.1.5 Testing of Manual Clothes Washing Machine

A.1.5.1 Programme to be used for manual clothes washing machine testing shall be in accordance with the manufacturer's instruction regarding the settings and operation of the appliance. Where no specific instructions are provided, the test procedure for manual washing machine in Annex M of PNS IEC 60456 shall be followed.

A.1.5.2 The recommended reference programme on the reference machine in accordance with Annex M of PNS IEC 60456 is Cotton 30°C.

A.2 Inspection of Generic Models

A.2.1 The following are not considered generic models:

A.2.1.1 There is difference in major components (i.e. motor, drum design and dimensions, etc.)

A.2.1.2 Other differences that may affect the energy performance of the unit.

A.2.2 In case of doubt, performance testing shall be required to be conducted on the submitted samples.

ANNEX B Performance Requirements

B.1 Washing Performance Requirement

B.1.1 The measured washability index, q , refers to the ratio of the average sum of the reflectance values for the test washing machine to the average sum of the reflectance values of the reference machine, shall not be less than 0.60.

Note:

- 1) Measured washability factor shall be rounded-off to the nearest 0.01. The rules of rounding-off shall be followed.
- 2) Verdict shall be based on the rounded-off value.
- 3) This requirement shall be subjected for review and upgrading every three (3) years or earlier as necessary.

B.2 Tolerances

B.2.2 The measured EEF shall not be less than 95 percent of the rated EEF of the test sample.

Note:

- 1) Measured percentage value shall be rounded-off to the nearest whole number. The rules of rounding-off shall be followed.
- 2) Decision shall be based on the rounded-off value.

B.2.1 The measured energy consumption shall not be more than 110 percent of the rated energy consumption of the test sample.

Note:

- 1) Measured energy consumption shall be rounded-off to the nearest 0.01 kWh/cycle. The rules of rounding-off shall be followed.
- 2) The measured energy consumption shall be rounded-off first before determining the tolerance.
- 3) Measured percentage value shall be rounded-off to the nearest whole number. The rules of rounding-off shall be followed.
- 4) Decision shall be based on the rounded-off value.

B.2.2 The measured washability index shall not be less than 90 percent of the rated washability index of the test sample.

Note:

- 1) Measured washability index shall be rounded-off to the nearest 0.01. The rules of rounding-off shall be followed.
- 2) Measured percentage value shall be rounded-off to the nearest whole number. The rules of rounding-off shall be followed.
- 3) Decision shall be based on the rounded-off value.

B.3 Energy Efficiency Classification of Clothes Washing Machine

- B.3.1** Clothes washing machine shall be classified based on rated EEF of the product.
- B.3.2** The classification shall be represented by stars with one star indicating the lowest range of EEF while five stars shall represent the highest range of EEF.
- B.3.3** There shall be only one set of energy efficiency classification for all types of clothes washing machine.
- B.3.4** The system for classifying the energy efficiency of clothes washing machine shall follow the procedure stated in Annex C.

C.3 Washability Index Classification of Clothes Washing Machine

- B.3.1** Clothes washing machine also shall be classified based on rated washability index rating of the product.
- B.3.2** The classification shall be represented by check (✓) with one check indicating the lowest range of washability index while three checks shall represent the highest range of washability index.
- B.3.3** There shall be only one set of washability index classification for all types of clothes washing machine.
- B.3.4** The system for classifying the washability of clothes washing machine shall follow the procedure stated in Annex C.

Draft Implementing Guidelines for Comments

ANNEX C EEF and Washability Index Classification

C.1 Star Classification of Clothes Washing Machine

All clothes washing machine shall be classified according to the rated EEF as follows:

Number of Stars	EEF Range
One Star (★)	Below 4.5
Two Star (★★)	4.5-18.4
Three Star (★★★)	18.5-33.4
Four Star (★★★★)	33.5-51.4
Five Star (★★★★★)	51.5 Above



C.2 Presentation of Washability Index




All energy labels shall follow the scheme on washability index as shown below.

Number of Checks	Washability Index Range
One Check (✓)	0.60
Two Check (✓✓)	0.61-0.90
Three Check (✓✓✓)	0.91-above

C.3 Presentation of Energy Labels

All energy labels shall follow the sample below.

One-star efficiency, one-check washability	
Two-star efficiency, one-check washability	

<p>Three-star efficiency, two-check washability</p>	
<p>Four-star efficiency, three-check washability</p>	
<p>Five-star efficiency, three-check washability</p>	

Note: Higher washability index (represented by number of checks) does not necessarily mean higher energy efficiency of the appliance. The energy labels above are merely examples and may vary from model to model.