BPS Memorandum Circular No. ________
Series of 2011

IMPLEMENTING RULES AND REGULATIONS (IRR)
ON DEPARTMENT ADMINISTRATIVE ORDER (DAO) No 3 Series of 2008 - RULES AND REGULATIONS CONCERNING THE SAFETY OF LOW VOLTAGE EQUIPMENT (LVE)

Pursuant to Republic Act 4109, series of 1964; Executive Order No. 101, series of 1976; Executive Order No. 913, series of 1983; Executive Order No. 133, series of 1987; and Republic Act 7394, series of 1992, the following implementing rules and regulations governing the Safety of Low Voltage Equipment that are placed in the market or put into service in The Philippines, is hereby promulgated for the guidance of all concerned.

1 OBJECTIVE

1.1 The provisions under clause 1 of DAO No. 3, series of 2008 shall apply.

1.1.1 The equipment placed in the market or put into service in the Philippines shall not endanger the safety of persons, domestic animals and also properties, when properly installed and maintained and used in application for which they were made.

1.1.2 These provisions constitute the essential requirements of DAO 3:2008. Before being placed in the market or put into service, the equipment must meet these essential requirements. To achieve these objectives, the safety objectives presented in Annex I of DAO 3:2008 shall be applied.

2 SCOPE

2.1 The provisions under clause 2 of DAO No. 03, series of 2008 shall apply. BPS shall come out with the list of LVE to be covered by the implementation of this regulation in progression taking into consideration the availability of technical infrastructure in place. Each LVE may likewise have individual implementing guidelines to further describe and define processes to comply with this regulation.

2.2 Safety aspects covered by the Regulation

2.2.1 The Regulation covers all risks arising from the use of equipment, including not just electrical ones but also mechanical, chemical (such as, in particular, emission of aggressive substances) and all other risks. The Regulation also covers health aspects of noise and vibrations, and ergonomic aspects as far as ergonomic requirements are necessary to protect against hazards in the sense of the Regulation.
2.2.2 It should be noted that electromagnetic compatibility (emission and immunity) aspects are excluded from the scope of this Regulation and will be separately regulated under an EMC Regulation.

2.2.3 Radiation aspects referred to in Annex I to the Regulation are limited to those directly relevant for health and safety of persons and domestic animals and do not cover electromagnetic disturbances in the sense of the LVE Regulation.

2.2.4 DAO 3:2008 covers all electromagnetic aspects relating to safety including functional safety. This covers also the effect of electromagnetic fields, emitted by electrical apparatus.

2.3 Exclusion from the scope of DAO 3:2008

2.3.1 Equipment on the list presented in Annex II of DAO 3:2008 is excluded from the scope.

2.3.2 Other Philippine Regulations may cover the excluded equipment.

2.3.3 Insulating tapes, for which safety depends critically not only on their intrinsic characteristics but also on how they are used under very variable conditions, are not considered equipment and are not covered by the LVE Regulation.

2.3.4 It is the responsibility of the manufacturer, his Authorized representative or the person responsible of placing the equipment in the Philippine market to verify which regulations will apply to its manufactured equipment.

2.3.5 For equipment under the scope of this regulation but not placed in the market, the regulation does not apply.

2.3.6 The placing of equipment in the market does not concern:

2.3.6.1 The disposal of equipment from the manufacturer to his authorized representative established in the Philippines who is responsible in behalf of the manufacturer for ensuring compliance with the Regulation;

2.3.6.2 Import into the Philippines for the purpose of re-export, i.e., under the processing arrangements;

2.3.6.3 The manufacture of equipment in the Philippines for export to another country;

2.3.6.4 The display of equipment at trade fairs and exhibitions. It may not be in full conformity with the provisions of the DAO 3:2008, but this fact must be clearly advertised next to the equipment being exhibited.

2.3.7 It should also be noted that for certain equipment excluded from the scope of DAO 3:2008, the provisions of other Regulations could apply. It is the responsibility of the manufacturer, his authorized representative or of the person placing the equipment in the Philippine market to know and comply with the provisions of all applicable regulations.

2.4 Guidance on the scope of the Regulation: Refer to Annex I of this IRR
3 DEFINITIONS

3.1 The provisions under clause 3 of DAO No. 3:2008 shall apply.

3.2 The following definitions shall also apply:

3.2.1 New equipment – means not second hand, refurbished or reconditioned equipment.

3.2.2 As-new equipment - Equipment already taken into service which is subject to an industrial operation that implies a substantial modification in order to obtain identical (or similar) performance as, and adapted to the technical progress to the new equipment placed in the market at the same time.

3.2.3 Direct function - Any function of a component or a finished product, which fulfills the intended use specified by the manufacturer in the instructions for use for the end-user. This function can be available without further adjustment or connections other than simple ones, which can be performed by any person not fully aware of the LVE implications.

3.2.4 Equipment - Any electrical or electronic finished product including components, parts, systems and installations.

3.2.5 Essential requirements - Mandatory requirements that lay down the necessary elements for protecting public interest.

3.2.6 Finished product - Any device, or unit of equipment that has a direct function, its own enclosure and if applicable, ports and connections intended for end users.

3.2.7 Fixed installation - A particular combination of several types of equipment and, where applicable, other devices, which are assembled, installed and intended to be used permanently at a predefined location.

3.2.8 Importer - A person or an entity, which bring any equipment into one country from another country in a legitimate fashion. The importer may also be responsible of placing the product in the market.

3.2.9 Mark - A mandatory or voluntary legal symbol affixed by the manufacturer on a product and/or on packaging and/or accompanying documents, under the responsibility of a third party conformity assessment body, symbolizing the conformity of the product with stated specifications.

3.2.10 Marking - A mandatory legal symbol affixed by and under the responsibility of the manufacturer or his authorized representative on a product and/or on packaging or accompanying documents, symbolizing the conformity of the product with all the essential requirements and conformity assessment procedures, imposed by a regulation applicable to the product.

3.2.11 Placing in the market - The first time the equipment is made available for the purpose of distribution and/or use in the market.

3.2.12 Putting into service - The moment of the first use.
3.2.13 Reconditioned (or refurbished) equipment - Used equipment whose performance has changed over time (due to ageing, obsolescence, etc.), and which has been modified so as to be restored. The case of equipment whose external appearance has been modified and improved by a cosmetic or aesthetic operation after it has been placed in the market and put into service is a particular form of refurbishment aimed at restoring the external appearance of the equipment.

3.2.14 Reconfigured equipment - Used equipment whose configuration has been modified by the addition (upgrading) or the removal (downgrading) of one or more parts (components, sub-assemblies such as plug-in cards or modules, etc.).

3.2.15 Repaired equipment - Equipment whose functionality has been restored following a defect without adding new features or any other modification.

3.2.16 Second-hand equipment - Used equipment, which is supplied to a user and which may or not have been modified by refurbishment, reconditioning or reconfiguration.

3.2.17 Spare part - Any item intended to replace a defective or worn out item of equipment.

3.2.18 System - A combination of several equipment, finished products, and/or components or parts combined, designed and/or put together by the same person (system manufacturer) intended to be placed in the market for distribution as a single functional unit for an end user and intended to be installed and operated together to perform a specific task.

3.2.19 Type certificate - Document issued upon successful completion of type certification

3.2.20 Type certification - Procedure by which a certification body gives written assurance that an equipment type conform to specified requirement

3.2.21 Used equipment - Equipment that has previously been placed in the Philippine market and put into service in Philippine territory.

3.3 Guidance on the definitions of the Regulation; Refer to Annex II of this IRR

4 ROUTES TO COMPLIANCE

4.1 The provisions under clause 4 of DAO No. 03, series of 2008 shall apply.

4.2 LVE listed under high risk category

4.2.1 Locally manufactured equipment

4.2.1.1 To demonstrate conformity to the essential requirements of this regulation, the manufacturer or his authorized representative shall secure a PS license from BPS according to mandatory harmonized PNS and procedures defined in DAO 04, series of 2008 and its future amendments (certification system 5 in accordance with ISO/IEC Guide 67:2004 requirements or its future amendments).

4.2.1.2 Prior to placing in the market or putting into service the equipment, the manufacturer or his authorized representative shall:
a) Issue a declaration of conformity (see Annex VI),
b) Retain the technical file (see Annex VII) containing the PS license to be presented on request of the authorities; and
c) Affix the PS mark (see Annex VIII) and the mandatory marking (see annex IX) on each equipment.

4.2.2 Imported equipment

4.2.2.1 To demonstrate conformity to essential requirements of this regulation, the manufacturer shall secure a PS license from BPS according to mandatory harmonized PNS and procedures defined in DAO 04, series of 2008 or its future amendments (certification system 5 in accordance with ISO/IEC Guide 67:2004 or its future amendments).

4.2.2.2 Prior to placing in the market or putting into service the equipment, the manufacturer or his authorized representative shall:

a) Issue a declaration of conformity (see Annex VI),
b) Retain the technical file (see Annex VII) containing the PS license to be presented on request of the authorities; and

4.2.3 In the case where the manufacturer didn’t secure a PS license and has no authorized representative, the entity responsible of placing in the market or putting into service the equipment shall secure an ICC license per shipment per bill of lading from BPS according to mandatory harmonized PNS and procedures defined in DAO 05, series of 2008 or their future amendments (certification system 1b in accordance with ISO/IEC Guide 67:2004 or its future amendments). The validity of test report and sampling plan based on the implementing guidelines of the PNS shall not apply.

4.2.4 Prior to placing in the market or putting into service the equipment, the entity responsible of placing in the market or putting into service shall:

a) Issue a declaration of conformity (see Annex VI);
b) Retain the technical file (see Annex VII) containing the ICC license to be presented on request of the authorities and;

c) Affix ICC mark (see annex VIII) and the mandatory marking on each equipment (see annex IX).

4.3 LVE listed under medium risk category

4.3.1 Locally manufactured equipment

4.3.1.1 To demonstrate conformity to essential requirements of this regulation, the manufacturer or his authorized representative shall secure a PS license from BPS according to mandatory harmonized PNS and procedures as per Certification System 1b in accordance with ISO/IEC Guide 67:2004 or its future amendments.

4.3.1.2 Prior to placing in the market or putting into service the equipment, the
manufacturer or his authorized representative shall:

a) Issue a declaration of conformity (see Annex VI);
b) Retain the technical file (see Annex VII) containing the PS License to be presented on request of the authorities;
c) Affix PS mark (see annex VIII) and the mandatory marking on each equipment (see annex IX).

4.3.2 Imported Equipment

4.3.2.1 To demonstrate conformity to essential requirements of this regulation, the manufacturer shall secure ICC license per shipment per bill of lading from BPS according to mandatory harmonized PNS and procedures as per Certification System 1b in accordance with ISO/IEC Guide 67:2004 or its future amendments. The validity of test report and sampling plan based on the implementing guidelines of the PNS shall apply.

4.3.2.2 Prior to placing in the market or putting into service the equipment, the manufacturer or his authorized representative shall:

a) Issue a declaration of conformity (see Annex VI), and
b) Retain the technical file (see Annex VII) containing the ICC license to be presented on request of the authorities;
c) Affix ICC mark (see annex VIII) and the mandatory marking on each equipment (see annex IX).

4.4 LVE listed under low risk category

4.4.1 Locally produced or imported equipment

4.4.1.1 To demonstrate conformity to essential requirements of this regulation, the manufacturer or his authorized representative shall secure a test report, or a certification, from a BPS Listed CAB according to harmonized PNS.

4.4.1.2 Prior to placing in the market or putting into service the equipment, the manufacturer or his authorized representative shall:

a) Issue a declaration of conformity (see Annex VI);
b) Retain the technical file (see Annex VII) containing the test report or certification to be presented on request of the authorities and;
c) Affix the mandatory marking on each equipment (see annex IX)

4.4.1.3 In the case where, for imported equipment, the manufacturer didn’t secure a certification or test report as indicated above in this paragraph and has no authorized representative, the entity responsible of placing in the market or putting into service the equipment in the Philippines shall secure a test report, or a certification from a BPS Listed CAB according to harmonized PNS for each imported shipment and:

a) Issue a declaration of conformity (see Annex VI);
b) Retain the technical file (see Annex VII) containing the test report or certification to be presented on request of the authorities and;
c) Affix the mandatory marking on each equipment (see annex IX).
4.4.1.4 The harmonized standards (may include mutually agreed harmonized regulatory requirements) provide presumption of conformity to essential requirements of DAO 3:2008, for equipment manufactured in accordance with said standards. That means that test reports, a certificate, a mark delivered according to harmonized standards are considered by BPS/DTI as a sufficient proof of compliance of the said equipment to the essential requirements of the regulation.

4.4.1.5 Alternatively, when harmonized standards are not used or used only partially, the product will not benefit from presumption of conformity and the manufacturer must include in the technical documentation (see Annex VII of the DAO No 3, series of 2008) a description of the solutions adopted to satisfy the essential requirements of the Regulation.

4.5 In the absence of harmonized PNS, the manufacturer or his authorized representative may use the following as prioritized:

1. International standards;
2. Regional standards (preferably ASEAN Harmonized Standards);
3. National standards;
4. Other technical specifications.

4.6 Applicable Conformity Assessment Procedure

4.6.1 Clause 4 and Annex III of the DAO No. 3, series of 2008 describe the procedure by which the manufacturer, his authorized representative established in the Philippines or under certain conditions (secure of an ICC certificate), the supplier responsible of placing the product in the market ensures and declares conformity of the equipment with the provisions of the Regulation. This includes three main elements:

4.6.1.1 Declaration of conformity (Annex VI of the DAO 3:2008). The manufacturer, his authorized representative established in the Philippines or under certain conditions (secure of an ICC license), the supplier responsible of placing the product in the market is the only one authorized to do so, to draw up in writing a declaration of conformity (see below) before placing the product in the market.

4.6.1.2 Technical documentation (Annex VII of the DAO 3:2008). Before a product is placed in the market, the manufacturer puts together the technical documentation, which makes it possible to assess whether the equipment complies with the requirements of the Regulation.

4.6.1.3 Mark/Marking (Annex VIII of the DAO 3:2008). Before it is placed in the market, the equipment must (if required by the regulation) have a mark and marking affixed. Only the manufacturer, his authorized representative established in the Philippines or under certain conditions (secure of an ICC certificate), the supplier responsible of placing the product in the market is authorized to affix the mark (PS/ICC) and any mandatory marking. The ASEAN Conformity Mark (for ASEAN manufactured EEE) when introduced may be affixed on the LVE to demonstrate that it complies with Annex I of DAO 03, series of 2008 (Essential Requirements)
4.7 Responsibility of the importer

4.7.1 If the importer is not the manufacturer's authorized representative, the importer assumes the responsibility of placing the product in the market and shall;

4.7.1.1 Comply with the essential requirements
4.7.1.2 Affix the Mark/marking;
4.7.1.3 Draw up the declaration of conformity;
4.7.1.4 Compile the Technical File.

4.8 Responsibility of manufacturer where no standards have been applied

4.8.1 Where no standards have been applied, the manufacturer has to provide within the technical documentation a description of the solutions adopted to satisfy the safety requirements of the Regulation.

4.8.2 In case of challenge by BPS/DTI in charge of market surveillance, a test report or a certificate from an accredited body may be considered an element of proof. In fact, in addition to the three basic conformity assessment measures, mentioned above, in the event that conformity is challenged, for the possible submission to BPS/DTI of a report drawn up by a listed CAB as evidence that the equipment complies with the safety objectives.

4.8.3 The manufacturer or his authorized representative established in the Philippines may wish in certain cases to ask in advance for a report to be drawn up by a Listed CAB to keep it together with the technical documentation. The availability of such a report would make matters easier and speedier in the event of a challenge by the authorities.

4.9 Declaration of conformity

4.9.1 The Declaration of conformity provided for in Annex VI of the Regulation is important both for assessment of the conformity of the equipment and for the procedure for monitoring the market.

4.9.2 The manufacturer or his authorized representative keeps this Declaration of Conformity at the disposal of the BPS/DTI for inspection purposes for a period of ten (10) years after the last equipment was placed in the market.

4.9.3 Where neither the manufacturer nor his authorized representative is established within the Philippines, the obligation to keep the declaration of conformity available is the responsibility of the person who places the product in the Philippine market.

4.9.4 The manufacturer takes all necessary measures in order to ascertain that the manufacturing process ensures compliance of the manufacturer's products with the applicable protection requirements of the Regulation as described in the Declaration of Conformity.

4.9.5 The manufacturers have to retain all relevant technical files in support of their conformity assessment.

4.9.6 It is not a requirement of this Regulation to supply a Declaration of Conformity with the equipment.
4.9.7  The Declaration of Conformity must be written in English language.

4.10  Technical documentation

4.10.1  It must include details of the design, manufacture and operation of the equipment in so far as these details are needed to assess the conformity of the equipment with the requirements of the Regulation.

4.10.2  Accordingly, it contains the technical file.

4.10.3  From the time the equipment is placed in the market, the manufacturer keeps a technical file at the disposal of the BPS/DTI. This technical file must contain all the technical data needed in order to assess the equipment performance and the solutions adopted for the equipment to comply with the protection requirements of the Regulation.

4.10.4  The manufacturer or his authorized representative established within the Philippines keeps this documentation at the disposal of the BPS/DTI in case of challenge for a period of ten (10) years after the last equipment was placed in the market. The documentation may be kept on electronic format, provided that it is easily accessible for inspection.

4.10.5  Where neither the manufacturer nor his authorized representative is established within the Philippines, the obligation to keep the technical file available is the responsibility of the person who places the equipment in the Philippine market (generally the importer).

4.10.6  The manufacturer takes all measures necessary to ascertain that the manufacturing process ensures compliance of the manufactured equipment with the applicable protection requirements as described in the technical construction file.

4.10.7  It is not a requirement of this Regulation to provide the technical file with the individual equipment for distribution purposes.

4.11  Technical file

4.11.1  The technical data must include the following information, limited to what is essential to assess the conformity of the equipment with the Regulation:

   4.11.1.1  A general description of the equipment;

   4.11.1.2  Design and manufacturing drawings together with layout diagrams covering components, sub-assemblies, circuits, etc;

   4.11.1.3  Descriptions and explanations needed in order to understand the above-mentioned drawings and diagrams as well as the operational aspects of the product;

   4.11.1.4  List of standards applied in whole or in part and a description of the solutions adopted in order to comply with the protection requirements of the Regulation in cases where the standards have not been applied;

   4.11.1.5  Design calculation results arising from the LVE tests;

   4.11.1.6  A copy of the Declaration of Conformity

   4.11.1.7  A copy of the instructions for installation, use and maintenance.

4.11.2  The supplier shall keep the technical files for no less than ten (10) years after the last product has left the production line and shall always be readily accessible to the BPS/DTI.
4.11.3 Listed CBs shall also keep applicable technical file for not less than six (6) years after expiry of the three (3) year validity of the Certificates of Conformity (CoCs).

4.12 Manufacturer’s instructions

4.12.1 The equipment shall be accompanied by instructions containing all the information required in order to install, use and maintain it in accordance with the intended purpose. Other than to facilitate the operation of the equipment, their purpose is also to ensure that no safety problem is encountered during its use.

4.12.2 These instructions must give the following information:

4.12.2.1 Intended conditions of use;
4.12.2.2 Instructions on:
  • Installation;
  • Assembly;
  • Adjustment;
  • Taking into service;
  • Use;
  • Maintenance and where necessary,
  • Warnings about limitations of use.

4.12.2.3 A copy of the instructions for use should be included in the technical file.

4.13 Marks and marking

4.13.1 The marks and the marking are placed by the manufacturer, his authorized representative established in the Philippines, or under certain conditions by the person or entity responsible of placing the product in the market.

4.13.2 The mark and marking are placed on the equipment, if not possible, then on the packaging, the instructions for use or the guarantee.

4.13.3 The marking declares conformity of equipment with the essential requirements and conformity assessment procedures set out under the DAO No. 3, series of 2008.

4.13.4 The marking must be affixed visibly, legibly and indelibly.

4.13.5 The affixing of marking which is likely to deceive or mislead third parties as to the meaning and form of the marking required by the DAO 3:2008 is prohibited.

5. RESPONSIBILITIES OF MANUFACTURER

5.1 The provisions under clause 5 of DAO No. 3, series of 2008 shall apply.

5.2 Other responsible persons

5.2.1 Where neither the manufacturer, nor the authorized representative, is established within the Philippines, the person or entity that places the equipment in the Philippine market has obligations under the scope of the Regulation. The obligation for this person or entity is to retain the necessary documentation at the disposal of the BPS/DTI for ten years after the last equipment has been placed in the market of the Philippine territory.
5.2.2 Should this person want to accept more responsibilities than those above, he can of course become the authorized representative in agreement with the manufacturer, or become the manufacturer, for example, to modify a product to suit the local market, in which cases he must assume the obligations of such parties.

6 RESPONSIBILITIES AND AUTHORITIES OF REGULATORY AUTHORITY

6.1 The provisions under clause 6 of DAO No. 3, series of 2008 shall apply.

7 LISTED CONFORMITY ASSESSMENT BODY (CAB)

7.1 Conformity Assessment Body shall first seek recognition from BPS to be a listed CAB before the issued COCs are accepted in accordance with the harmonized PNS and conformity assessment.

7.2 These listed CABs include BPS designated/recognized testing laboratories and certification bodies, ASEAN listed CABs (testing laboratories and certification bodies), and APLAC/ILAC accredited laboratories which have undergone appropriate BPS designation/ recognition process.

8 REGISTRATION

8.1 Upon completion of the applicable technical and administrative requirements, the supplier shall file an application for product registration to BPS/DTI. Registration shall be completed within five (5) working days or seven (7) calendar days, otherwise it is deemed approved and shall not require any conformity assessment activity over and above the conformity assessment carried out by a listed CAB.

8.2 The Registration Mark shall be affixed to the registered LVE over and above the required certification mark, as applicable.

8.3 BPS/DTI shall come out with the list of registered LVE.

9 MARKET SURVEILLANCE AND ENFORCEMENT

9.1 The provisions of DTI DAO No.02, series of 2007 and its future amendments shall apply;

9.2 In order to prevent widespread distribution of unsafe LVE, BPS may take appropriate action to inform other concern parties including regulatory authorities of other countries about the following:

9.2.1 Failure to satisfy Annex I of DAO 03, series of 2008 (Essential Requirements)
9.2.2 Incorrect application of harmonized PNS
9.2.3 Shortcomings in the harmonized PNS
9.2.4 Occurrence of accident involving the registered LVE.

10 SEPARABILITY CLAUSE

10.1 The provisions under clause 7 of DAO No. 3, series of 2008 shall apply.
11 FINAL PROVISIONS

11.1 The provisions under clause 8 of DAO No. 3, series of 2008 shall apply.

12 EFFECTIVITY

12.1 This Implementing Guidelines shall take effect immediately.

CARMENCITA B. MAGNO
Officer-In-Charge, BPS

28 November 2011
DATE
ANNEX I

Guidance on the scope of the Regulation

Voltage rating

Voltage ratings refer to the voltage of the electrical input or output voltages, not to voltages which may appear inside the equipment.

The term “designed for use with a voltage range” shall be understood at equipment having either a rated input voltage or a rated output voltage inside this voltage range. Internally there may be higher voltages.

Battery operated equipment outside the voltage rating is obviously outside the scope of the LVE. Nevertheless, the accompanying battery-charger as well as equipment with integrated power supply unit within the voltage ranges of the Regulation is in the scope of the LVE. This applies also, in the case of battery-operated equipment with supply voltage rating under 50 V AC and 75 V DC, for their accompanying power supply unit (e.g. Notebooks).

Broadly, the Regulation covers consumer and capital goods designed to operate within the voltage limits indicated in the DAO 3:2008, including in particular electrical appliances, lighting equipment including ballasts, switch gear and control gear, electric motors and alternators, electric wiring, cable management systems, appliance couplers and cord sets, electrical installation equipment, etc.

Application of the Regulation on Components

In general, the scope of the Regulation includes both equipment intended for incorporation into other equipment and equipment intended to be used directly without being incorporated. However, some types of electrical devices, designed and manufactured for being used as basic components to be incorporated into other equipment, are such that their safety to a very large extent depends on how they are integrated into the final product and the overall characteristics of the final product. These basic components include electronic and certain other components.

Taking into account the objectives of the DAO 3:2008, such basic components, the safety of which can only, to a very large extent, be assessed taking into account how they are incorporated, are not covered as such by the Regulation. However, other electrical components which are intended for being incorporated into other equipment, but for which a safety assessment is feasible, like, for example, some types of transformers and electrical motors, are covered as such by the Regulation.

Moreover, the scope of the exclusion of basic components must not be misunderstood and extended to items like lamps, starters, fuses, switches for household use, elements of electrical installations, etc., which, even if they are often used in conjunction with other equipment and have to be properly installed in order to deliver their useful function, are themselves to be considered equipment in the sense of the Regulation.

Note 1: This includes, i.e., active components such as integrated circuits, transistors, diodes, rectifiers, triacs, GTO’s, IGBT’s, opto-semi-conductors; passive components such as capacitors (except for some high power capacitors), inductance, resistors, filters; electromechanical components such as connectors, devices for mechanical protection which are part of equipment, relays with terminals for printed circuit boards, micro switches.

Note 2: A further assessment of the safety aspects related to the way in which such components are incorporated may be also necessary.
Application of the Regulation on spare parts

A typical repair operation would be replacement by a spare part. If the manufacturer of the original spare part offers a new, different one in its place (due to technical progress, discontinued production of the old part, etc.), and it is used for the repair, the repaired equipment does not need to be brought into conformity again with the DAO 3:2008, if such parts do not produce an equipment with worse LVE performance equipment as compared with the “original”.

Whenever possible, manufacturers of such parts should indicate their general intended use and warn of potential LVE behavior, to allow corrective LVE action if required.

The spare parts for which the DAO 3:2008 applies are those intended to be placed in the Philippine market as single commercial units to be distributed and/or used. All this applies whether the spare part is manufactured in or outside the Philippines. Those spare parts that, although complying with the criteria mentioned regarding the application of the Regulation, are exclusively intended for replacement of an identical part of equipment not Marked, placed in the Philippine market before the date of full entry into force of the DAO 3:2008 should also be considered. It does not make sense to insist on compliance for these parts if the equipment for which they are solely destined does not comply with the Regulation, because it did not need to do so when it was "legally" placed in the Philippine market. Since they are identical to the parts to be replaced, they do not alter the LVE characteristics of the equipment.

Application of the Regulation on finished products

According to the definition given in clause 3 of this guideline, a finished product is any device or unit of equipment that always has a direct function, an enclosure of its own and, if applicable, ports and connections intended for end users.

Accordingly, manufacturers must bear in mind the following criteria when applying the DAO 3:2008 to finished products:

If the finished product intended exclusively for an industrial assembly operation for incorporation in "equipment" or if it is (also) intended to be marketed individually for distribution and/or use as a single commercial unit.

The manufacturer of the end equipment will, under his responsibility, comply with the Regulation; in both design and construction. He will use the right finished product and components, taking account of their technical characteristics and limitations, with due consideration given to their intended use.

Finished products intended to be placed in the market for distribution and final use. This category covers finished products which, in accordance with the end use criterion, are placed in the market for distribution and/or use. They are "equipment", as defined in the Regulation and therefore they are fully subject to the provisions of the DAO 3:2008 and must be marked.

Finished products not intended to be placed in the market for distribution and/or final use. This is the case with finished products designed, manufactured and intended for incorporation in "equipment" by professional manufacturers. These finished products are not placed in the market for distribution and/or direct use. The manufacturer must provide with such finished product the relevant instructions to enable their operation within the equipment in which they will be incorporated, in accordance with the intended purpose. The instructions for use of such finished products must indicate safety aspects to be considered by the manufacturer of the final equipment to help solve the foreseeable safety problems within the final equipment. The manufacturer of a finished product knows more than any other party about the characteristics of his product and very often he already has experience related to safety problems. If so,
he should give appropriate warnings and advice in the instructions for use. None of the other provisions of the DAO 3:2008 such as mark, Declaration of Conformity or the involvement Conformity Assessment Bodies is mandatory.

Application of the Regulation on systems

A common understanding of "Systems"

In normal usage, the word "system" is sometimes used for an optional combination of several equipment to perform a specific task where the end-user is the person who decides which equipment are used to construct this so-called "system", and where the equipment were not intended to be placed together in the market as a single functional unit.

A computer "system" consisting of a CPU, keyboard, printer, monitor, etc. is a good example. Each one of those parts is equipment placed in the market independently from the others and complying in full with the DAO 3:2008. They are all marked. A person not technically proficient in safety matters can interconnect them. In accordance to clause 1 of this guideline, they are supplied with clear instructions for interconnection, integration, use and maintenance (when applicable), as well as limitations for use. Following those instructions, in particular those related to cabling, in the manner intended by the manufacturer(s) of the constituent parts incorporated into the system justifies the assumption that the system is safe.

The manufacturer of each constituent piece of equipment in the system has already fully applied the Regulation, and particularly taken into account the intended use.

Clearly, for such a so-called "system", the DAO 3:2008 has already produced its effect.

As the parts are not placed in the market as one functional unit, further measures that might be needed are outside the application of the DAO 3:2008. This kind of "system" neither needs an additional Mark nor an additional Declaration of Conformity for the "system" as a whole.

"Systems" within this regulation

For the purpose of the DAO 3:2008, a system is defined as a combination of several equipment, finished products, and/or components (hereinafter called "parts") combined, designed and/or put together by the same person (system manufacturer) intended to be placed in the market for distribution as a single functional unit for an end user and intended to be installed and operated together to perform a specific task.

The system as a whole is an equipment; within the meaning of the DAO 3:2008. It must therefore be designed and put together so as to comply with the essential requirements of the DAO 3:2008. This compliance should include any reasonably foreseeable situation, in any of its configurations.

A combination of "parts" may only be considered as a system if the manufacturer lists all "parts" in the instructions for use and declares for the attention of the installer and/or end user that this combination forms a system. The system manufacturer assumes responsibility for the compliance of the system as a whole with the Regulation, and must therefore provide clear instructions for assembly, interconnection, integration, installation, use and maintenance (where applicable), as well as limitations for connection and use. Given that the assembler, installer and/or end-user have only to follow these instructions, they may assume that they install and operate the system in conformity with the relevant provisions.

Equipment, that could also be called a system, composed of other equipment and/or components (whether or not they are marked) and which is a single commercial unit, must comply fully with the DAO
3:2008. An illustrative example is a computer CPU, composed of a power supply, CD-ROM, motherboard and disk drive supplied in an enclosure. This “system” is regarded as equipment and therefore subject to the DAO 3:2008.

*Several cases of systems in the sense of the Regulation ought to be considered:*

1. **Systems assembled from only marked equipment**

   As a good example we can take again the computer system consisting of a CPU, keyboard, printer, monitor, etc. The differences between the previous example and the case described here, is that in this instance, the above mentioned parts are put together by the same person (the system manufacturer) and placed in the market as a single functional unit, and that this person assumes responsibility for the compliance of the system as a whole with the Regulation. Since the manufacturer(s) of each part of the system has/have already fully applied the Regulation, and particularly taken into account the intended use, there are additional requirements for the system manufacturer to apply to comply with the DAO 3:2008:

   a. The declaration of conformity, as well as the instructions for use must refer to the system as a whole;

   b. It must be clear (e.g. by enclosing a list of all parts) which is/are the combination(s) that form(s) the system placed in the market for distribution and/or use.

   The manufacturer assumes responsibility for compliance with the Regulation and must therefore provide clear instructions for assembly, installation, operation and maintenance in the instructions for use.

   The system as a whole does not need to bear the Marking (all this applies even if it is offered in the market as a single functional unit, as long as each part bears the Marking).

   Note: Manufacturers of systems described above should be aware that combining two or more marked subassemblies might not automatically produce a system, which meets the requirements of the relevant standard. E.g.: a combination of marked PLC’s (Programmable Logic Controllers) and motor drives within a machine tool put together to be placed in the market as a system may fail the requirements, whereas a HI-FI system composed of a separately marked amplifier, tuner, CD player and cassette deck, wired up correctly is quite likely to maintain its compliance.

2. **Systems assembled from equipment including some not marked.**

   Constituent parts considered in this section are:

   a. Marked equipment, finished products and components with a direct function, which fully comply with the Regulation;

   b. Non-Marked equipment, finished products or components intended exclusively for an industrial assembly operation for incorporation in other “equipment”.

   Systems discussed in this section are composed of non-marked equipment, finished products or components and may also include marked equipment. They must only be combined into a system (intended to be placed in the market as a single functional unit) by a professional person.

   As a professional person, he is supposed to understand the LVE related technical implications of the parts when combined into a system and make the right judgments so as to fulfill the objectives of the
Regulation. He becomes manufacturer -in the full sense-. The system is therefore equipment in the sense of the LVE Regulation and must comply with all its provisions.

The Declaration of Conformity, as well as the instructions for use must refer to the system as a whole. It must be clear (e.g. by enclosing a list of all parts) which is/are the combination(s) that form(s) the system placed on the market for distribution and/or use. The system manufacturer assumes responsibility for compliance with the Regulation and must therefore provide clear instructions for assembly/installation/operation/maintenance in the instruction for use. One marking is sufficient, affixed just once on the main part of the system, if all parts are supplied as one unit.

Those parts of the system, which are themselves compliant equipment, may, of course, be distributed and/or used outside the system.

3. **System or equipment with various configurations**

Most often systems or equipment are offered in different configurations, to perform different tasks. These configurations are variants of a complete or complex configuration. The system manufacturer (assembler or integrator) can follow the approach below, suggested as a way to simplify his tasks while fully complying with the DAO 3:2008:

- a. The responsible person should attempt to define, from an LVE perspective, the configuration most likely to cause the maximum safety risks. This configuration often called the “worst case” should be defined, so that the other possible configurations are included in it in LVE terms.
- b. Such a configuration is then brought into full compliance with the Regulation;
- c. The manufacturer then declares conformity and affixes the Mark/marking.

Once the worst-case configuration defined above is in conformity, the manufacturer (assembler or integrator) can place in the market any of the possible variants or configurations without further verification, since they are included in it in LVE terms. He then draws up and signs the Declaration of conformity and affixes the Mark/marking to each variant.

If the manufacturer (assembler or integrator) later wants to add some new components/parts to his configuration(s), that were not included in the original LVE “worst case” that was fully LVE compliant, he must then verify that it does not affect the original LVE “worst case”:

- a. If it’s the case, he is not requested to carry out further verifications from the LVE point of view. He then signs the Declaration of conformity and affixes the Mark/marking to the configuration(s).
- b. If it’s not the case, he must then ensure that the new LVE worst case configuration(s) are in full compliance with the Regulation.

**Application of the Regulation on installations**

A common understanding of “Installations”

In normal usage the word “installation” is sometimes used to refer to an optional combination of several equipment, to perform a specific task where the end-user is the person who decides which equipment are used to construct this so-called “installation” and where the equipment were not intended to be placed in the market as a single functional unit. Such installations must be considered like those
combinations, described previously, which are commonly referred to as "systems" and treated as such. They are not treated further in this chapter.

A good example of such an "installation" is a HI-FI installation composed of an amplifier, tuner, CD player and cassette deck, each of them separately marked and separately placed in the market.

1. Fixed installations

General

"Fixed Installation", in the broadest sense, is defined as "a combination of several equipment, systems, finished products and/or components (hereinafter called "parts") assembled and/or erected by an assembler/installer at a given place to operate together in an expected environment to perform a specific task, but not intended to be placed in the market as a single functional or commercial unit".

The Regulation does not distinguish between different kinds of installations, but in order to avoid unnecessary burdens for manufacturers of parts and assemblers/installers, it is convenient to investigate which provisions of the Regulation can be declared non-applicable without compromising the objectives of the Regulation.

LVE problems in equipment when used in installations shall be solved on a case-by-case basis, by cooperation between manufacturers of parts incorporated into the installation, the user and on some occasions, an installation contracting company. The combined expertise of these parties results in the correct operation of the total installation, and also enables its integration into a network.

The installation must comply with the essential requirements of the Regulation as defined in clause 1.

The person(s) responsible for the design, engineering, and construction (assembly and erection) becomes the "manufacturer" in the sense of the Regulation, and assumes responsibility for the installation's compliance with all applicable provisions of the Regulation, when taken into service. The LVE assembly instructions given by the manufacturer(s) of parts, and the whole method of installation has to be in accordance with good engineering practice within the context of installations, as well as installation rules (national, regional or local) that will ensure the compliance of the whole installation with the essential requirements of the DAO 3:2008. Such rules cannot influence the design and manufacture of equipment that are already in conformity with the DAO 3:2008.

Such an installation cannot "enjoy" free (physical) movement within the Philippine market, and in respect of the DAO 3:2008 there is no need for mark or Declaration of conformity. The manufacturer of the installation must provide clear instructions for operation and maintenance in the instructions for use.

2. Movable installations

An installation which is intended to be moved to and operated in a range of locations (e.g. a vehicle for electricity generation) has free (physical) movement within the Philippine market. Therefore such movable installations have to comply with the Regulation like a system as described previously.

If such installations are, however, intended to substitute for, or to extend a fixed installation, they have to be treated in the same way as a fixed installation. The temporary connections to the networks of such installations must be carefully planned, and installed by experts.

Application of the Regulation to used equipment

Used equipment that were in the market and used in the Philippines before the date of entry into force
of the DAO 3:2008 are not covered by it; they had been used in accordance with the applicable regulations; they were "legal" then; they continue to be so today, unless such equipment are modified such that they become "as new equipment".

Used equipment imported from another country made available for the first time in the Philippines for the purpose of distribution and/or use in the Philippines, are not considered as used equipment as regards the application of the DAO 3:2008, but as new equipment, so DAO 3:2008 shall apply to them.

Within this context, two points should be made:

a. In all that follows, we will refer only to equipment for which the LVE regulation is potentially applicable under the criteria developed in the previous chapters of this guide. Equipment not subject to the LVE Regulation are therefore, excluded from these discussions.

b. The application of the DAO 3:2008 to "as-new equipment" is without any prejudice to intellectual property legislation.

Application of the Regulation to repaired equipment

This is equipment whose functionality has been restored following a defect without adding new features or any other modification.

This operation does not affect the safety characteristics of the original equipment. From the LVE point of view, the repaired equipment is not different from the original product. The DAO 3:2008 does not apply.

Application of the Regulation to reconditioned (or refurbished) equipment

According to the definition given in clause 3 of this guideline, reconditioned equipment are used equipment whose performance being changed over time (due to ageing, obsolescence, etc.), has been modified so as to be restored to their original performances. The case of equipment whose external appearance has been modified and improved by a cosmetic or aesthetic operation after it has been placed in the market and put into service is a particular form of refurbishment aimed at restoring the external appearance of the equipment.

So, the provisions given in this guideline for used equipment apply to reconditioned or refurbished equipment.

Application of the Regulation to reconfigured equipment

Such equipment according to the definition given in clause 3 of this guideline is used equipment whose configuration have been modified by the addition (upgrading) or the removal (downgrading) of one or more parts (components, sub-assemblies such as plug-in cards or modules, etc.).

These modifications may affect the LVE performances of the equipment; they are considered as new equipment and the provisions for "as new equipment" apply.

The responsible of such modifications is considered as the manufacturer has to verify compliance with the provisions of this regulation and to declare conformity.

Application of the Regulation to second hand equipment

Second hand equipment being, according to the definition given in clause 3 of these guidelines used equipment supplied to a user, and which may or not have been modified by refurbishment,
reconditioning or reconfiguration, if the equipment has not been modified, the provisions of used equipment shall apply.

If the equipment has been modified, the provisions for refurbished, reconditioned or reconfigured equipment shall apply.

**Application of the Regulation to modified or “as-new” equipment**

The general principle is that the regulation re-applies only if the modifier claims that the modified equipment is to be considered “as-new equipment” in accordance with the definition given in this guideline and if it is intended to be placed again on the Philippine market for distribution and /or use as a single commercial unit.

Nevertheless, the following criteria can be applied:

a. The "original" equipment was not marked, not in compliance with the LVE Regulation (because it did not then apply):

   i. If after the modifications of the equipment it does not become in “as-new equipment”. The DAO 3:2008 is not mandatory. The "original" one had been acceptable and, it would not be logical to force compliance in this case. The person responsible for placing it on the Philippine market should be able, however, to justify his decision in case of challenge by the BPS/DTI. He should also ensure that the name of any “new” manufacturer (modifier) is included in the operating instructions supplied with the equipment,

   ii. If, however, the modified equipment results in an as-new equipment, it makes sense to request compliance with the LVE Regulation. The party responsible for the "as-new" equipment is here considered as the manufacturer and all the applicable criteria (and simplifications) given in this guide should be addressed.

b. The "original" equipment was marked; it complied with the DAO 3:2008:

   i. The modified equipment does not result in “as-new equipment”, the re- application of the DAO 3:2008 is not mandatory. The modifier must, in any case, document what he has done, his LVE analysis, tests carried out if any, and his final conclusions. Such documentation will be required in case of a challenge. The resulting equipment should bear sufficient information that permits enforcement authorities and the end user to know that this is modified equipment and to permit the identification of the modifier; the "original" manufacturer could otherwise be considered responsible for things that he has not done.

   ii. If, however, the modified equipment results in “as-new equipment” it makes sense to re-apply the LVE Regulation. The party responsible for the modification is here considered as the manufacturer and all applicable criteria (and simplifications) given in this guide should be addressed.

In all cases, if the modified configuration had been envisaged and documented by the "original" manufacturer and made part of his assessment of conformity, as LVE conformant variants or configurations of his equipment before it was placed in the market and if the modifier follows strictly the "original" manufacturer’s instructions and limitations, *the Regulation does not need to be re-applied.*

In these conditions, the modifier has not altered the manufacturer’s conformity assessment; he has not done anything not intended by the "original" manufacturer. He does not need to carry out additional tests, etc. The "original" manufacturer remains responsible for the LVE conformity and the "original" assessment is valid.
Whoever produces “as-new” equipment from an “original” equipment through an industrial operation that implies a substantial modification in order to obtain identical (or similar) performance as the new equipment placed in the market at the same time, must, therefore, be able to certify its conformity before placing it in the market again. He can do so by assuming, in full, the responsibility of manufacturer and completing the full LVE analysis, conformity assessment, Declaration of conformity and Mark/marking.

**Application of the Regulation to equipment modified by the end user**

Such modifications should be considered excluded from the application of the DAO 3:2008.

They are made under the sole responsibility of the end user, may be subject to some pertinent legislation, but not under the DAO 3:2008. This equipment is not being traded. The "client" receiving the modified equipment is here the end user (and modifier) himself; he cannot claim that anybody else is responsible for what he has done.

In any case, he **should not trade such modified equipment unless it is brought into** conformity with the applicable provisions of the Regulation.

In any case, he ought to document what he has done, LVE analyses, tests carried out if any, and his final conclusions. Such documentation will be required in case of challenge by the BPS/DTI. The resulting equipment must have on it or in its documentation the name of the modifier and details of the modifications, in so much as they affect LVE performance, which must be made available to the BPS/DTI in case of challenge; the "original" manufacturer could otherwise be considered responsible for things that he has not done.
ANNEX II

Guidance on the definitions under clause 3 of DAO No. 3, series of 2008

Authorized representative

This person must be expressly appointed by the manufacturer, which is not located in the Philippines by a written mandate to act on his behalf in respect of certain manufacturer’s obligations. The extent to which the authorized representative may enter into commitments binding on the manufacturer is determined in accordance with the mandate conferred on him/her by the latter.

As an example, he could be appointed to undertake the testing in the Philippine territory, sign the declaration of conformity, affix the mark and hold the declaration of conformity and the technical construction file at the disposal of the BPS/DTI.

If a manufacturer appoints an authorized representative, the latter must be established within the Philippines.

Clause 5 of the DAO 3:2008 define some of the obligations incumbent on the authorized representative established within the Philippines with regard to conformity assessment, marks, declaration of conformity and the arrangements for holding this declaration of conformity, together with the technical construction file (where applicable), at the disposal of the BPS/DTI for a period of ten years after the last equipment was placed in the market.

Where neither the manufacturer nor his authorized representative is established within the Philippines, the entity responsible of placing the equipment in the market or to, put it into service shall keep the manufacturer’s declaration of conformity and the technical construction file at the disposal of the BPS/DTI for a period of ten years after the last equipment was placed in the market. If he cannot keep the mandated documents he shall secure an ICC license to BPS and declare conformity.

Should this entity want to accept more responsibilities than those above, he can of course become the authorized representative in agreement with the manufacturer, or become the manufacturer, for example, to modify a product to suit the local market, in which cases he must assume the obligations of such parties.

Manufacturer’s responsibilities

The manufacturer bears responsibility for:

- Design and construction of the equipment in accordance with the protection requirements laid down in the Regulation;
- Following the procedures for the certification of the conformity of the equipment with the protection requirements laid down in the Regulation.

Whoever modifies substantially equipment resulting in an “as-new” equipment, with a view to placing it on the Philippine market, also becomes the manufacturer.

The manufacturer has sole and ultimate responsibility for the conformity of his equipment to the applicable Regulations. He must understand both the design and construction of the equipment to be able to certify such conformity in respect of all applicable provisions and requirements of the relevant Regulations.
If its equipment is not part of the exclusion list (see annex II of DAO 3:2008) and not part of the lists of high, medium and low risks equipment, as the sole and ultimate responsible person, he will undertake a safety risk analysis to conclude if his equipment is subject to the DAO 3:2008 and which requirements apply. He is ultimately responsible for such an analysis.

The manufacturer may subcontract certain operations, e.g., equipment design or production, provided that he retains overall control and responsibility for the equipment as a whole. By the same token, he may use ready-made items or components, marked according to this regulation or not, to produce the equipment without losing his status as a manufacturer.

It is the manufacturer’s responsibility to ensure that each and all of his equipment comply, where this equipment falls under the scope of the Regulation. He can use any method he deems appropriate. If he uses a statistical approach, like sampling (lots), he should ensure that the method is designed and carried out to achieve this end.

The manufacturer shall hold the declaration of conformity, together with the technical construction file (where applicable), at the disposal of the BPS/DTI for a period of ten years after the last equipment was placed in the market.

**Placing in the market**

A product is placed in the market when it is made available for the first time for distribution and/or use in the Philippines.

The concept of placing in the market determines the moment when equipment passes for the first time from the manufacturing stage to the market of the Philippines or the importing stage from a third country to that of distribution and/or use in the Philippines.

Since the concept of placing in the market refers only to the first time an equipment is made available in the Philippines for the purpose of distribution and/or use in the Philippines, the DAO 3:2008 covers only new equipment manufactured within the Philippines and new or used equipment imported from a third country.

Made an equipment available means the transfer of the equipment, that is, either the transfer of ownership, or the physical hand-over of the equipment by the manufacturer, his authorized representative in the Philippines or the importer to the person responsible for distributing the equipment on the Philippine market or the passing of the equipment to the final consumer or user.

In a commercial transaction, for payment or free of charge, regardless of the legal instrument upon which the transfer is based (sale, loan, hire, leasing, gift, or any other type of commercial legal instrument). The equipment must comply with the Regulation at the moment of transfer.

If a manufacturer, his authorized representative in the Philippines offers equipment covered by the Regulation in a catalogue, it is deemed not to have been placed in the market until it is actually made available for the first time. Therefore equipment offered in a catalogue would not have to be in full conformity with the provisions of the DAO 3:2008, but this fact must be clearly advertised in the catalogue.

The Regulation's provisions and obligations concerning placing in the market are applicable to each equipment individually and not to a type, group or family of equipment and irrespective of the date and place of manufacturing.
Putting into service

Putting into service takes place at the moment of first use within the Philippines by the end user.

Equipment which are ready for use as soon as they are placed in the market and which do not have to be assembled or installed, and where the distribution conditions (storage, transport, etc.) make no difference to the safety performance of the equipment, are considered to have been put into service as soon as they are placed in the market.

Where equipment is manufactured in the Philippines or imported from a third country for the manufacturers’ or end user’s own use, placing in the market is combined with putting into service; the obligation to conform to the Regulation begins with first use.

Used in application for which they were made

That means using the equipment in accordance with the manufacturer’s instructions. Such information must be contained in documents (operating and installation manual) accompanying the equipment.