ADOPTION PROPOSAL FORM

**CPR183/F15**

**KENYA BUREAU OF STANDARDS**

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| **Document Type:** | **Adoption proposal** | |
| **Dates:** | Circulation date | Closing date |
| 2022-01-05 | 2021-02-05 |
| **TC Secretary** | **This form shall be filled, signed and returned to Kenya Bureau of Standards for the attention of Alex S Mboa (amboa@kebs.org)** | |

The Kenya Bureau of Standards intends to adopt the International Standards as detailed here below.

We are therefore seeking views from potential users in respect of the same. The Standards are available at the Kenya Bureau of Standards Information Resource Centre. Please tick and fill your preference of the listed option in the attached table against each of the standards.

Where the option is that the adoption is not acceptable, you MUST give a reason(s) and recommendation(s).

**NOTE:** Absence of any reply or comments shall be deemed to be an acceptance of the proposal for adoption and **shall constitute an approval vote**.

1. **Number**: IWA 33-1:2019

**Title**: IWA 33-1:2019 Technical guidelines for the development of small hydropower plants — Part 1: Vocabulary

**Scope**: This document defines the professional technical terms and definitions commonly used for small hydropower (SHP) plants.

https://www.iso.org/obp/ui/#!iso:std:77455:en

1. **Number**: IWA 33-2:2019

**Title**: Technical guidelines for the development of small hydropower plants — Part 2: Site selection planning

**Scope**: This document specifies the general principles of site selection planning for small hydropower (SHP) projects, and the methodologies, procedures and outcome requirements of SHP plant site selection.

https://www.iso.org/obp/ui/#!iso:std:79364:en

1. **Number**: IWA 33-3:2020 to replace KS 2806 series

**Title**: Technical guidelines for the development of small hydropower plants — Part 3: Design principles and requirements

**Scope**: This document specifies the general principles and basic requirements of design for small hydropower (SHP) projects up to 30 MWe, mainly including hydrology, geology, energy calculations, project layout, hydraulics, electromechanical equipment selection, construction planning, project cost estimates, economic appraisal, social and environmental assessments.

<https://www.iso.org/obp/ui/#iso:std:iso:iwa:33:-3:ed-1:v1:en>

1. **Number**: IEC 60545:2021

**Title**: Guidelines for commissioning and operation of hydraulic turbines, pump-turbines and storage pumps

**Scope**: The purpose of this document is to establish, in a general way, suitable procedures for

commissioning and operation of hydraulic machines and associated equipment, and to indicate

how such machines and equipment should be commissioned and operated.

<https://webstore.iec.ch/preview/info_iec60545%7Bed2.0%7Db.pdf>

1. **Number**: IEC 63132-1:2020

**Title**: Guidance for installation procedures and tolerances of hydroelectric machines - Part 1: General aspects

**Scope**: The purpose of this part of IEC 63132 is to establish, in a general way, suitable procedures and tolerances for the installation of hydroelectric turbines and generators. This document presents

a typical assembly. There are many possible ways to assemble a unit. The size of the machines,

design of the machines, layout of the powerhouse and delivery schedule of the components are

some of the elements that could result in additional steps, the elimination of some steps and/or

assembly sequences.

https://webstore.iec.ch/preview/info\_iec63132-1%7Bed1.0%7Db.pdf

1. **Number**: IEC 63132-2:2020

**Title**: Guidance for installation procedures and tolerances of hydroelectric machines - Part 2: Vertical generators

**Scope**: The purpose of this part of IEC 63132 is to establish, in a general way, suitable procedures and tolerances for installation of generator. This document presents a typical assembly. There are

many possible ways to assemble a unit. The size of the machines, design of the machines,

layout of the powerhouse or delivery schedule of the components are some of the elements that

could result in additional steps, the elimination of some steps and/or assembly sequences.

https://webstore.iec.ch/preview/info\_iec63132-2%7Bed1.0%7Db.pdf

1. **Number**: IEC 63132-3:2020

**Title**: Guidance for installation procedures and tolerances of hydroelectric machines - Part 3: Vertical Francis turbines or pump-turbines

**Scope**: The purpose of this this part of IEC 63132 is to establish, in a general way, suitable procedures and tolerances for the installation of a vertical Francis turbine or pump-turbine. This document presents a typical assembly and whenever the word “turbine” is used in this document, it refers to a vertical Francis turbine or a pump-turbine. There are many possible ways to assemble a unit. The size of the machine, design of the machine, layout of the powerhouse or delivery schedule of the components are some of the elements that could result in additional steps, the elimination of some steps and/or assembly sequences.

https://webstore.iec.ch/preview/info\_iec63132-3%7Bed1.0%7Db.pdf

1. **Number**: IEC 63132-4:2020

**Title**: Guidance for installation procedures and tolerances of hydroelectric machines - Part 4: Vertical Kaplan or propeller turbines

**Scope**: The purpose of this this part of IEC 63132 is to establish, in a general way, suitable procedures and tolerances for the installation of a vertical Kaplan or propeller turbine. This document presents a typical assembly and whenever the word “turbine” is used in this document, it refers to a vertical Kaplan or propeller turbine. There are many possible ways to assemble a unit. The size of the machine, design of the machine, layout of the powerhouse or delivery schedule of the components are some of the elements that could result in additional steps, the elimination of some steps and/or assembly sequences.

https://webstore.iec.ch/preview/info\_iec63132-4%7Bed1.0%7Db.pdf

1. **Number**: IEC 62006:2010

**Title**: Hydraulic machines - Acceptance tests of small hydroelectric installations

**Scope**: This International Standard defines the test, the measuring methods and the contractual guarantee conditions for field acceptance tests of the generating machinery in small hydroelectric power installations. It applies to installations containing impulse or reaction turbines with unit power up to about 15 MW and reference diameter of about 3 m. The driven generator can be of synchronous or asynchronous type.

https://webstore.iec.ch/preview/info\_iec62006%7Bed1.0%7Db.pdf

1. **Number**: ISO 20816:2018

**Title**: Mechanical vibration - Measurement and evaluation of machine vibration - Part 5: Machine sets in hydraulic power generating and pump-storage plants

**Scope**: This document provides guidelines for evaluating the vibration measurements made at the bearings, bearing pedestals or bearing housings and also for evaluating relative shaft vibration measurements made on machine sets in hydraulic power generating and pump-storage plants when the machine is operating within its normal operating range.

https://webstore.iec.ch/preview/info\_iso20816-5%7Bed1.0%7Den.pdf

**ADOPTION PROPOSAL**

| **S/No.** | **Standard Number** | **Adoption acceptable as presented** | **Adoption proposal not acceptable** | **Reason why adoption proposal not acceptable** | **Proposed Change/recommendation(s)** |
| --- | --- | --- | --- | --- | --- |
|  | IWA 33-1:2019 |  |  |  |  |
|  | IWA 33-2:2019 |  |  |  |  |
|  | IWA 33-3:2020 |  |  |  |  |
|  | IEC 60545:2021 |  |  |  |  |
|  | IEC 63132-1:2020 |  |  |  |  |
|  | IEC 63132-2:2020 |  |  |  |  |
|  | IEC 63132-3:2020 |  |  |  |  |
|  | IEC 63132-4:2020 |  |  |  |  |
|  | IEC 62006:2010 |  |  |  |  |
|  | ISO 20816-5:2018 |  |  |  |  |