# The Bureau of Energy Efficiency (Manner and Intervals of Time for Conduct of Energy Audit) Regulations, 2010

UNION OF INDIA India

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# Regulation THE-BUREAU-OF-ENERGY-EFFICIENCY-MANNER of 2010

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#### 1. Short title and commencement. -

(1) These regulations may be called the Bureau of Energy Efficiency (Manner and Intervals of Time for Conduct of Energy Audit) Regulations, 2010.(2) They shall come into force on the date [Came into force on 28-4-2010] of their publication in the Official Gazette.

#### 2. Definitions .-

(1)In these regulations, unless the context otherwise requires,-(a)"Act" means the Energy Conservation Act, 2001;(b)"energy audit report" means the report of energy audit submitted under regulation 3 and signed by the accredited energy auditor;(c)"Form" means a Form appended to these regulations;(d)"specific energy consumption" means the average of energy consumed per unit of product or product-mix for the completed financial year.(2)Words and expressions used herein and not defined but defined in the Act shall have the meanings respectively assigned to them in the Act.

## 3. Intervals of time for conduct of energy audit .-

(1)Every designated consumer shall have its first energy audit conducted, by an accredited energy auditor within 18 months of the notification issued by the Central Government under clause (i) of section 14 of the Act.(2)The interval of time for conduct and completion of subsequent energy audits shall be three years with effect from the date of submission of the previous energy audit report by

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the accredited energy auditor to the management of the designated consumer.

## 4. Manner of energy audit. -

Every energy audit under the Act shall be conducted in the following manner:-(1)Verification of data of energy use. -The accredited energy auditor shall-(a)verify the information submitted to the designated agency under the Energy Conservation (the Form and Manner for Submission of Report on the Status of Energy Consumption by the Designated Consumers) Rules, 2007 for the previous two years through examination of energy bills, production data, inspection of energy-using equipment, production-processes, and systems, spot measurements, discussion or interview with the officers and staff regarding operation of plants, energy management procedures, equipment maintenance problems, equipment reliability, projected equipment needs, improvements undertaken or planned, establish validated data on annual energy consumption and prepare a report in Form 1 for the year preceding to the year for which energy audit report shall be prepared and submitted;(b)establish specific energy consumption for the year referred to in clause (a);(c)disaggregate the energy consumption data and identify major energy using equipment, processes and systems.(2)Scope of energy audit. -The accredited energy auditor jointly with the energy manager of the designated consumer shall-(a)develop a scope of work for the conduct of energy audit required under the Act with a view to ensuring adequate coverage in terms of the share of total energy use that is covered in the energy audit;(b)select energy intensive equipment or processes for energy auditing;(c)agree on best practice procedures on measuring the energy efficiency performance of selected equipment and on algorithm to estimate energy performance and energy savings;(d)collect energy consumption, and production data for the equipment and processes covered within the scope of energy audit operating data, and schedule of operation, non-proprietary process flow charts, production level disaggregated by product, if applicable and such other historical data as may be considered essential by the accredited energy auditor for achieving the purpose of energy audit.(3)Monitoring and analysis of use of energy data for energy audit. -The accredited energy auditor shall-(a)verify the accuracy of the data collected in consultation with the energy manager, appointed or designated by the designated consumer in terms of the notification number S.O. 318(E), dated the 2nd March, 2007, as per standard practice to assess the validity of the data collected; (b) analysis and process the data with respect to-(i) consistency of designated consumers data monitoring compared to the collected data;(ii)recommendations to reduce energy consumption and improve energy efficiency; (iii) summary overview of energy consumption in plant or establishment by fuel type and by section;(c)conduct equipment energy performance measurements with due diligence and caution.

## 4. Preparation of recommendations on energy saving measures, their cost benefit analysis. -

The accredited energy auditor having regard to the overall efficiency of the production process, techno-economic viability of energy saving measures, site conditions and capacity of the designated consumer to invest for their implementation, shall prepare a list of recommendations to save energy and the list shall include-(a)a brief description of each recommended measure;(b)the estimated energy saving as well as energy cost reduction potential over a reasonable technical or economic life

of the measure;(c)any known or expected technical risk associated with each measure;(d)a preliminary assessment of financial attractiveness of each measure or assessment of maximum investment feasible based on the estimated energy cost saving potential over the life of the measure;(e)tabulated summary of recommendations listed as per their implementation schedule (short medium and long term);(f)where different alternatives for implementation of an energy efficiency measure are available, the accredited energy auditor shall examine and discuss such options and recommend the techno-financially better option;(g)where the installation or implementation of any recommended energy saving measure affects procedures for operation and maintenance, staff deployment and the budget, the recommendation shall include discussion of such impacts including their solutions.

### 6. Structure of the energy audit report. -

(1) The energy audit report structure shall be jointly decided by the accredited energy auditor and designated consumer.(2) The energy audit report shall highlight, details of specific energy consumption, list of recommendations to reduce energy consumption and costs, monitoring and evaluation of impact of selected measures and conclude with certification by accredited energy auditor stating that-(a) the data collection has been carried out diligently and truthfully;(b)all data monitoring devices are in good working condition and have been calibrated or certified by approved or authorised agencies and no tempering of such devices have occurred;(c)all reasonable professional skill, care and diligence have been taken in preparing the energy audit report and the contents thereof are a true representation of the facts; (d) adequate training provided to personnel involved in daily operations after implementation of recommendations; and(e)the energy audit has been carried out in accordance with these regulations, and the format for the preparation of energy audit report is given in Form 4 for guidance.(3)The accredited energy auditor shall highlight the strengths and weaknesses of the designated consumer in the management of energy and energy resources in the energy audit report and recommend necessary action to improve upon method of reporting data, energy management system in detail along with their underlying rationale, and improving energy efficiency and reducing energy consumption in the designated consumer.(4)The accredited energy auditor shall sign the energy audit report under the seal of its firm giving all the accreditation details along with details of manpower employed in conducting the energy audit.(5)The energy audit report shall include a work schedule sheet duly signed by accredited energy auditor and energy manager of the designated consumer.