



आयुध निर्माणी बोर्ड
10ए एस के बोस रोड
कोलकाता 700001
(अभियांत्रिकी विभाग)

ORDNANCE FACTORY BOARD
10 A, S. K. BOSE ROAD
KOLKATA 700 001
(ENGG DIVISION)



भारतीय आयुध निर्माणियां, रक्षा मंत्रालय
Indian Ordnance Factories, Ministry of Defence

No. 105/Energy Audit/E/B

Dated 15.05.2013

To

The Sr.General Manager/ General Manager
All Ordnance & Ordnance Equipment Factories

Sub: Standard Operating Procedure for Conduction of Energy Audit at Ordnance & Ordnance
Equipment Factories (Version 2)

The subject SOP has been approved by 'Board' during 4th Board Meeting held on 30.04.2013.

The same is enclosed herewith for compliance.

(L.Mohanty)
DDG/Engg.

For Director General Ordnance Factories

Copy to:

All Sr.RCS/RCS

For necessary action for Para 5.0 of subject SOP pl.

ENERGY AUDIT
STANDARD OPERATING PROCEDURE (SOP)
(Version 2)

All Ordnance & Ordnance Equipment Factories shall carry out Two tier Energy Audit, as follows :

- I Tier: Energy Audit through Internal Resources every year.
- II Tier: Energy Audit through external accredited Energy Auditing Agency empanelled by Bureau of Energy Efficiency (BEE) once in 3 years.

2.0 Energy Audit through Internal Resources every year

Annual Energy Audit shall be carried out by an Energy Auditor nominated amongst the existing personnel of the factory. The Auditor should be a Graduate engineer with three years' work experience or Diploma Engineer with 5 years' work experience in operation, maintenance, planning etc. for use of energy and has taken training in Energy Conservation

Each factory shall plan for annual audit program at beginning of year.

Submission of Audit Report & Follow up action: Factory concerned after carrying out energy audit following the norms, shall submit report to OFB (Engg division) by 31st July along with PDC for actionable points. Compiled report of factories shall be put up to Member/ PEDB & TS by 30th September.

3.0 Energy Audit through external Energy Auditor :

3.1 Eligibility & Selection of external Energy Auditor:

Factory shall select an external energy audit agency through the process of Open Tender Enquiry (OTE) in which the agencies, empanelled by Bureau of Energy Efficiency (BEE) will be eligible to participate.

3.2 Conduction of Energy Audit & Follow up Action: Energy Audit through External Energy Auditor shall be carried out once in three years. Base year of such audit is 2007-2008. Factories shall submit a report to OFB and take suitable action to implement recommendations of the energy auditor and the implementation status will be monitored by Internal Energy Auditor.

4.0 Analysis of energy consumption pattern shows that except in A&E group of factories, major consumption of energy is in the form of Electrical Energy. In case of A&E group of factories, both electricity and furnace oil contribute equally in energy consumption. Factories may take action accordingly.

5.0 Audit by RCS: Regional Controllerate of Safety(RCS) of respective zone shall verify conduction of annual audit by Internal Energy Auditor. They shall make separate observation during their regular safety audit of factories, endorsing copy of this report to OFB after the signature of General Manager. A copy shall be sent to DDG/Engg.

6.0 To facilitate work in this regard, factories should maintain the followings , as applicable:

- a. Electrical distribution line/cable layout.
- b. Boiler and steam distribution layout.
- c. Compressed air system layout.
- d. Refrigeration system layout.
- e. Water line network for portable water & fire fighting line.
- f. Energy consumption data.
- g. List of equipments/plants/machineries with standard energy consumption data.