

Aug 8, 2017

To: Modern Energy Management Ltd.

Attn: John Geiser

Re: BCSA review of “ELEMENTS” electronic logbook

A BCSA review of Modern Energy Management’s electronic logbook program, “ELEMENTS” has found it acceptable for use for the recording of maintenance and operation of Refrigeration Systems.

The Safety Standards Act does not provide any specific direction for the use of electronic media. The Electronic Transaction Act of BC provides general permission that a record in writing is satisfied if the record is in electronic form and is accessible in a manner usable for subsequent reference, subject to any other provisions, requirements, information or records prescribed in the regulations.

Review and acceptance of the ELEMENTS program is based on conformance with the following:

The Boiler Regulations require that:

**Power Engineers, Boiler, Pressure Vessel and Refrigeration Safety Regulation Owners and licensed contractors to maintain records**

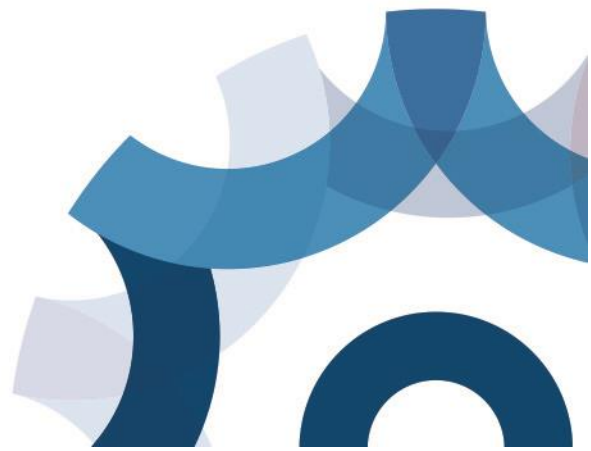
**72** The owner of a plant or a licensed contractor must maintain or cause to be maintained, for a period of at least 7 years, any documentation required by a provincial safety manager.

CSA Code requires:

**CSA B51**

#### **13.3.4 Documentation**

Where inspection and maintenance operations are carried out according to documented procedures, the procedures and documents shall be acceptable to the authority having jurisdiction.





## CSA B52

### 8.4.5

Equipment logging shall consist of the following:

- a) Systems shall be logged regularly as per manufacturer's and industry guidelines. Logs and records shall consist of operational characteristics, environmental issues, and safety design criteria/issues.
- b) Logs and records shall be kept manually or automatically and be made available for local and remote interrogation and as per regulations.
- c) Systems logs should be periodically compared with the original startup log. (i.e., minimum annually, preferably monthly to compare efficiencies and possible safety conflicts).

In lieu of a hardbound book, the log may be kept on electronic media recording devices provided the following provisions are met:

1. The log provides a permanent and accurate record.
2. The owner must be prepared to produce daily logs and supporting documents if requested by a Safety Officer.
3. The Log is secured in such a way as to prevent revisions, additions or deletion of data which has been previously recorded.
4. The log includes a provision for signature's by a secure means for the operator and the person in charge.
5. A policy and procedure must be established and clearly state that the electronic log is intended to satisfy the requirements of the Safety Standards Act, Power Engineers, Boiler, Pressure Vessel and Refrigeration Safety Regulation and applicable Codes.
6. In the case of an electronic log book failure, provision's shall be made for a hard bound log book to be available for recording activities within the plant.
7. All logs must be archived and available upon request by a Safety Officer for a minimum of 7 years.
8. Any other site specific requirements of the Boiler Safety Officer.

**Larry Malmgren** | Senior Safety Officer, Boilers & Pressure Vessels

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