



## Environmental Choice<sup>M</sup> Program Panel Review Process

# VERIFICATION AND LICENSING CRITERIA CCD-091

**Product Type: Battery Powered Lawnmower**

### Notice

Throughout this document, any reference to a standard or guideline means to its latest edition.

The Environmental Choice<sup>M</sup> Program (ECP) reserves the right to accept equivalent test data for the test methods specified in this document.

### Interpretation

1. In this set of requirements, please note the following definitions:

*Not applicable.*

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### General Requirements

2. In order to minimize the solid waste burden, conserve resources, and reduce quantities and impacts of toxic substances and other pollutants associated with packaging, the ECP requires the submission of an attestation of commitment to the objectives of the National Packaging Protocol.
  
3. To be authorized to carry the Ecologo<sup>M</sup>, the lead-acid battery powered lawnmower must:
  - (a) meet or exceed all applicable governmental and industrial safety and performance standards; and

- (b) be manufactured and transported in such a manner that all steps of the process, including the disposal of waste products arising therefrom, will meet the requirements of all applicable governmental acts, by laws and regulations including, for facilities located in Canada, the *Fisheries Act* and the *Canadian Environmental Protection Act* (CEPA).

## Product Specific Requirements

4. To be authorized to carry the Ecologo<sup>M</sup>, the lead-acid battery powered lawnmower must:
- (a) use a sealed lead-acid battery;
  - (b) be capable of being recharged up to 300 times before reaching 80% of the initial capacity;
  - (c) be accompanied by a two year customer warranty;
  - (d) be offered with a "take-back" program for the lead-acid battery;
  - (e) have a noise emission level less than 88dBA;
  - (f) be evaluated against a performance, durability and safety test protocol incorporating at least the following elements:
    - (i) performance evaluations including:
      - motor performance:
        - for torque incorporating:
          - *UL 1447, sections 28.7 and 28.8, and*
          - *CSA C22.2, No. 147, section 6.14.6.1;*
        - "out of balance" tests incorporating:
          - *UL 1447, section 28.4,*
          - *ANSI B71.1-1986, section 10.3.3, and*
          - *CSA C22.2, No. 147, section 6.14.6.2;*
      - leakage current incorporating:
        - *UL 1447, section 30, and*
        - *CSA C22.2, No. 147, section 6.7 or 7.6.2;*
      - starting current incorporating:
        - *UL 1447, section 31, and*
        - *CSA C22.2, No. 147, section 6.3;*
      - dielectric voltage withstand incorporating:
        - *UL 1447, section 64, and*
        - *CSA C22.2, No. 147, section 6.6 or 7.6.1;*
      - blade stopping time incorporating:

- *UL 1447, section 28.6, and*
  - *CSA C22.2, No. 147, section 6.15;*
  - air flow measurement and temperature evaluation incorporating:
    - *UL 1447, section 34, and*
    - *CSA C22.2, No. 147, section 6.5;*
  - vibration and sound evaluation incorporating:
    - *UL 1447, sections 27.1 to 27.4, and 27.9;*
- (ii) life testing and component evaluations including the following:
- unit field life,
  - motor life,
  - brake system life,
  - switch/relay life incorporating:
    - *UL 1447, section 41, and*
    - *CSA C22.2, No. 147, section 6.9;*
  - flip-over handle life,
  - flap,
  - discharge shute,
  - wheel,
  - wheel height adjuster,
  - handle folding life and structure incorporating:
    - *UL 1447, section 38, and*
    - *CSA C22.2, No. 147, section 4.16.4;*
  - guards incorporating:
    - *UL 1447, section 28.19;*
  - grass bag, and
  - attachment plug incorporating:
    - *UL 1447, section 39.*
- (iii) durability and safety testing including the following:
- "thrown objects" tests incorporating:
    - *UL 1447, sections 28.22 to 28.30,*
    - *ANSI B71.1-1986, section 10.37, and*
    - *CSA C22.2, No. 147, section 6.14.6.5;*
  - foot probe safety tests incorporating:
    - *UL 1447, section 28.13, and*
    - *CSA C22.2, No. 147, section 6.18;*
  - obstruction test incorporating:
    - *UL 1447, section 28.17;*
  - stake impact test incorporating:
    - *UL 1447, section 28.2, and*

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- *CSA C22.2, No. 147, section 6.14.6.4;*
  - drop and integrity tests:
    - integrity tests incorporating:
      - *UL 1447, section 28.9,*
      - *ANSI B71.1-1986, sections 10.3.5 and 10.3.6,* and
      - *CSA C22.2, No. 147, section 6.14.6.3,*
    - physical abuse tests incorporating:
      - *UL 1447, sections 22.3, 22.5 and 65,*
      - *ANSI B71.1-1986, section 10.3.2,* and
      - *CSA C22.2, No. 147, section 6.14.5;*
  - environmental tests:
    - heat resistance incorporating:
      - *UL 1447, section 66;*
  - rain test incorporating:
    - *UL 1447, section 36,* and
    - *CSA C22.2, No. 147, section 6.8;*
  - chemical resistance tests;
  - situational safety tests;
  - blade integrity tests; and
- housing integrity tests:
    - fatigue life incorporating:
      - *UL 1447, sections 30, 45.1, and 46.1;*
    - ultraviolet aging;
    - accelerated aging incorporating:
      - *UL 1447, sections 43 (if applicable) and 46;*
    - chemical resistance;
    - cold impact incorporating:
      - *UL 1447, section 38.4;* and
    - "rolling rock" test.

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## Verification

5. To verify a claim that a product meets the criteria listed in this document, the ECP will require access, as is its normal practice, to relevant quality control and production records and the right of access to production facilities on an announced basis.
6. Compliance with requirement 3(b) shall be attested to by a signed statement of the Chief Executive Officer or the equivalent officer of the licensee. The ECP shall be advised in writing immediately by the licensee of any noncompliance which may occur during the term of the license. On the occurrence of any noncompliance, the license may be suspended or terminated as stipulated in the license agreement.

## Conditions for EcoLogo Use

7. The EcoLogo may appear on wholesale or retail packaging, or on the product itself, provided that the product meets the requirements in this document.
8. All licensees and authorized users must comply with the ECP's *Guide to Proper Use of the EcoLogo<sup>M</sup>* regarding the format and usage of the EcoLogo.
9. Any accompanying advertising must conform with the relevant requirements stipulated in this guideline, the license agreement and the ECP's *Guide to Proper Use of the EcoLogo<sup>M</sup>*.

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