



# The New Zealand Ecolabelling Trust

EC-41-09

Licence Criteria for

## Long Steel Products for Construction

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## 1. INTRODUCTION

Environmental Choice New Zealand (ECNZ) is an environmental labelling programme which has been created to help businesses and consumers find products and services that ease the burden on the environment. The programme results from a New Zealand Government initiative and has been established to improve the quality of the environment by minimising the adverse and maximising the beneficial environmental impacts generated by the production, distribution, use and disposal of products, and the delivery of services. The programme is managed by the New Zealand Ecolabelling Trust (the Trust).

ECNZ operates to the ISO 14024 standard "Environmental labels and declarations - Guiding principles" and the Trust is a member of the Global Ecolabelling Network (GEN) an international network of national programmes also operating to the ISO 14024 standard.

ISO 14024 requires environmental labelling specifications to include criteria that are objective, attainable and verifiable. It requires that interested parties have an opportunity to participate and have their comments considered. It also requires that environmental criteria be set, based on an evaluation of the environmental impacts during the actual product or service life cycle, to differentiate product and services on the basis of preferable environmental performance.

The life cycle approach is used to identify and understand environmental issues (adverse or beneficial impacts) across the whole life of a product or service (within a defined product or service category). This information is evaluated to identify the most significant issues and from those to identify the issues on which it is possible to differentiate environmentally preferable products or services from others available in the New Zealand market. Criteria are then set on these significant and differentiating issues. These must be set in a form and at a level that does differentiate environmentally preferable products or services, is attainable by potential ECNZ licence applicants and is able to be measured and verified. As a result of this approach, criteria may not be included in an ECNZ specification on all aspects of the life cycle of a product or service. If stages of a product or service life cycle are found not to differentiate environmentally preferable products or services, or to have insufficient data available to allow objective benchmarking in New Zealand, those stages will not generally be included in criteria in the specification. For some issues, however, (such as energy and waste) criteria may be set to require monitoring and reporting. These criteria are designed to generate information for future reviews of specifications.

This specification has been prepared based on an overview level life cycle assessment, information from standards for similar products from other Global Ecolabelling Network (GEN) member programmes, and relevant information from other ECNZ specifications.

This document will be valid for a period of five years. Twelve months before the expiry date (or at an earlier date if required), the Trust will initiate a further review process for the specification.

## **2. BACKGROUND**

Steel construction products fall into two broad categories: “long” and “flat” products. Long steel products are made from “blooms” or “billets” and include rods, bars/coil sections, wire, reinforcing, nails and small diameter seamless pipes. These types of products can be made with high recycled content using steel produced in Electric Arc Furnace mills. Flat steel products are made from steel slabs and include; plate, strip, hollow sections, large diameter welded pipe and structural beams. These products do not contain high levels of recycled steel and are manufactured with steel produced predominantly in Integrated mills. This specification covers steel bar, coil or rods that are used to make steel construction products, and long steel construction products.

### **2.1 Market information**

Iron and steel are essential materials that are used in a very wide range of construction applications and products, including steel framing, structural steel (beams, channels, angles, etc), reinforcing bar (rebar), wire, roofing and cladding, decking, doors, sashes, windows, ductwork, pipe, fixtures, hardware (hinges, handles, braces, screws, nails, etc), culverts, stormwater drains and manhole covers.

Internationally, crude steel production has risen at a very fast rate since the 1940s and in 2007 global production was of the order of 1,344 million tonnes per annum (Source: International Iron and Steel Institute<sup>1</sup>). New Zealand manufactures of the order of 850 thousand tonnes (kt) steel per annum at two steel production facilities.

Exports of iron and steel and articles (made from iron and steel) from New Zealand are worth about NZ\$ 1,497 million, while imports of iron and steel and articles are worth about NZ\$ 890 million each year (Source: Investment NZ<sup>2</sup>). Iron and steel imported into New Zealand primarily originates from Australia, however a significant amount of iron and steel and articles are also imported from Asia (South Korea, Japan, Taiwan and others) and the United Kingdom.

There is one New Zealand producer of long steel products, Pacific Steel (a division of Fletcher Building). Pacific Steel has a significant market share in New Zealand of reinforcing bar, wire rod, welded wire mesh and drawn wire products. To a varying extent, Pacific Steel competes with imported long steel products in most product categories. Most of the nails sold in New Zealand are manufactured overseas, however some nails are produced locally from wire rod produced by Pacific Steel.

The other steel producer in New Zealand is New Zealand Steel Limited, who produces steel slab and a range of flat products such as roofing and cladding materials and welded pipe. There is virtually no market overlap between the two New Zealand steel producers.

There is no New Zealand producer of structural steel products, such as beams and columns however there are a number of importers competing in this market.

### **2.2 Methods of iron and steel production**

There are two main types of steel production facilities:

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<sup>1</sup> <http://www.worldsteel.org/>

<sup>2</sup> <http://www.investmentnz.govt.nz/section/14341.aspx>

- **Integrated steel mills:** Conventional integrated mills use a Blast Furnace (BF) to produce pig iron from sintered iron ore. The fuel for a BF is usually coke, which is produced by pyrolysis of coal. The pig iron is then converted to steel in a Basic Oxygen Furnace (BOF). BOFs can only use a relatively small proportion of steel scrap (typically between 10 and 35%).

Integrated mills typically produce “plate” products (thickness from 10 mm to 200 mm) or strip products (thickness from 0.2mm to 16mm). Plate products are used in applications such as ship building, construction and large diameter welded pipes. Thin flat (strip) products are used in automotive body panels, domestic white goods, roofing and cladding materials, etc.

- **Direct melting:** Up to 100% steel scrap (or pig iron) is melted and refined by applying a large electrical current in an Electric Arc Furnace (EAF). These facilities are sometimes referred to as mini-mills.

EAFs typically produce “long” products, such as rods, bars or sections. Typical rod products are the reinforcing bar (rebar) used in concrete. Sections include the large rolled steel joists (RSJ) that are used in building projects. Wire-drawn products and seamless pipes are also part of the long products group.

There are other iron and steel making technologies that are less commonly used, such as producing Direct Reduced Iron (DRI) pellets or Hot Briquetted Iron (HBI) from iron ore using natural gas. Steel can be produced using an Open Hearth Furnace, however this is much more energy intensive than a BF and is generally only used in developing countries because of the lower capital cost.

In 2005, 65.4% of world steel production was via the integrated route, 31.7% via EAF and 2.9% via the open hearth and other methods. (Source: International Iron and Steel Institute<sup>3</sup>). At a sector level, there is a high level of mutual beneficial dependency between the different manufacturing processes. Production of virgin steel is required to meet demand for steel products. These products have a long life and are not available for recovery and reuse until the end of their useful life. As historic production and demand for steel has been far lower than current demand, there is not sufficient recovered steel available for re-processing in EAF mills to meet demand. Integrated mills are limited in the proportion of recovered steel they can process and have some dependence on EAF mills to provide recycling options for the virgin steel products they produce.

### 2.3 Steel processing and finishing

The main processing and finishing stages for steel are described below:

- **Casting:** There are two methods of casting; batchwise (ingots) or a continuous process (slabs, blooms, billets). Continuous casting is more energy efficient.
- **Rolling:** The metal billet is reduced in thickness in the hot roll mills and further reduced to sheets, bars and rods by cold rolling. Wire is produced by cold drawing steel rod.

<sup>3</sup> <http://www.worldsteel.org/?action=faqlist&id=6>

- Pickling: To prepare the steel for cold rolling or drawing, pickling (usually acid pickling with sulphuric or hydrochloric acid) is carried out to remove oxides and scale from the surface of the steel.
- Coating: metal coating processes include coating with zinc (galvanising), zinc/aluminium alloy and painting. Zinc, aluminium or alloy coated steel is often passivated to prevent surface corrosion during storage. Passivation is commonly undertaken using a chromate solution (containing hexavalent chromium which is a known carcinogen). Alternative passivating techniques have been (or are being) developed and are implemented to varying extent for different product categories.

## 2.4 Steel production in New Zealand

### *Pacific Steel (a division of Fletcher Building)*

Pacific Steel produces approximately 200 kt of steel a year at their facility in Otahuhu, Auckland. Pacific Steel operates an electric arc furnace and uses 100% scrap metal. Steel is cast into billets which are then rolled into a range of bar (up to 40 mm diameter) and rod (up to 12 mm) products. Billets are transported to the wire plant, which is a separate facility located close to the steel mill. Pacific Steel produces a wide range of wire rod, reinforcing bar and coil products. Most of Pacific Steel's product is sold domestically.

### *NZ Steel Limited*

The only integrated steel mill in New Zealand (NZ Steel) uses a unique process that uses titomagnetitic iron sand extracted from the Waikato North Head mine site. NZ Steel uses a direct reduction process to smelt iron, where the primary reducing agent is sub-bituminous coal. The molten pig-iron is converted to steel in a KOBM oxygen steel making furnace. NZ Steel produces around 650kt of steel each year.

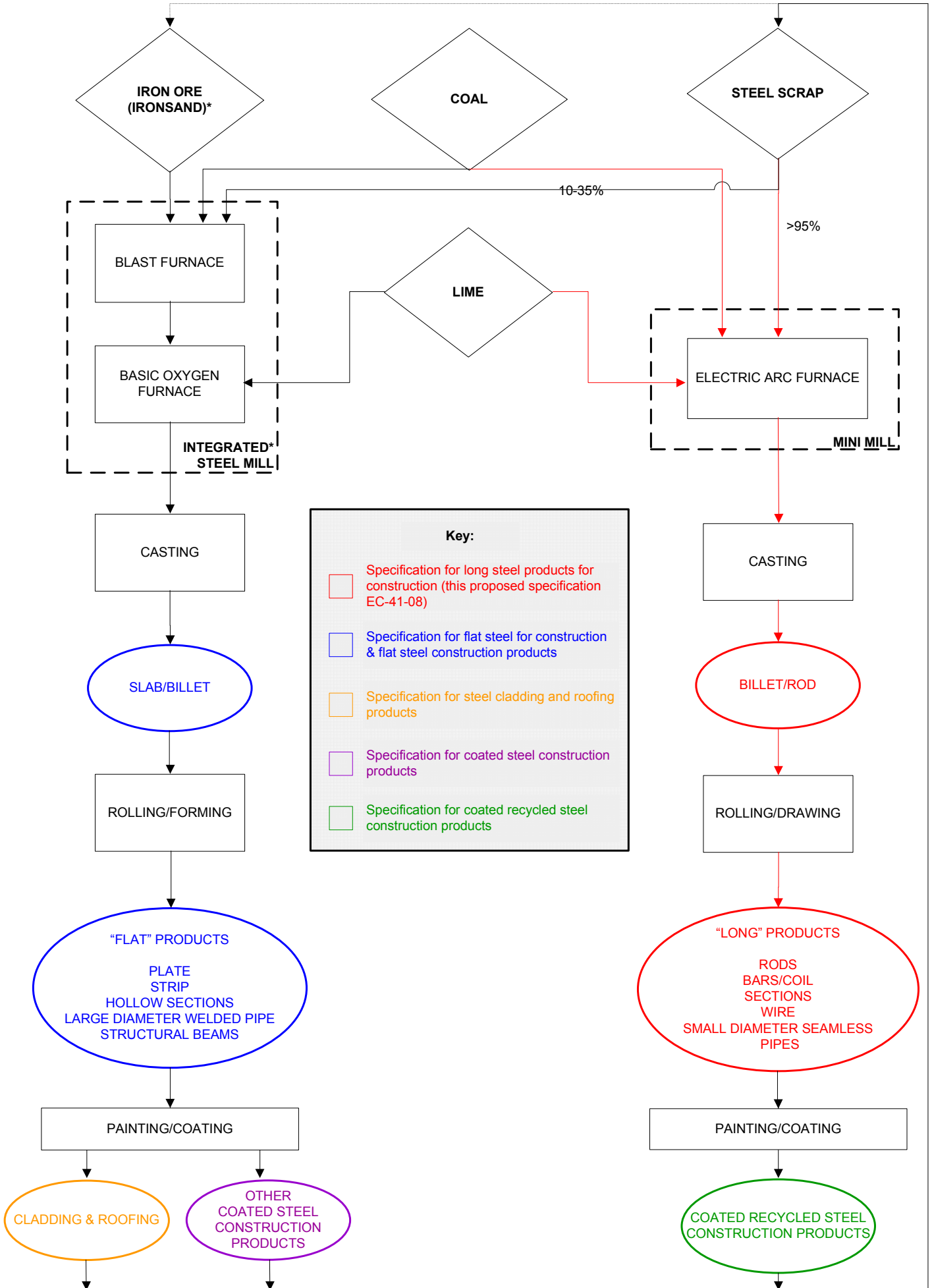
The steel is cast into slabs and then hot or cold rolled. The steel coil is either on-sold or further processed into products like pipe and hollow sections, welded structural beams and a range of cladding and roofing products (e.g. ZINCALUME, COLORSTEEL and GALVSTEEL products). About 60% of the production from NZ Steel is exported.

The unique process used at NZ Steel presents some challenges in preparing a specification that would include products manufactured at this site. This is because there will be difficulties benchmarking this process against other integrated mills producing similar products. Benchmarking is important to provide a basis to set environmental criteria that differentiate products on the basis of environmental performance on a life cycle basis.

## 2.4 Specification framework

The framework for a suite of ECNZ specifications to cover the range of steel and steel construction products is shown on the following page. This provides for different criteria for "long" products (containing a high recycled content steel and manufactured using an EAF), compared to "flat" products (with lower recycled content and steel manufactured at an Integrated Steel Mill). The steel products in the scope of this proposed specification are shown in red. The scope of products for other possible ECNZ specifications for steel and steel products is shown in other colours as indicated in the key.

**PRODUCTION OVERVIEW AND SPECIFICATION FRAMEWORK FOR STEEL PRODUCTS**



\* NOTE: NZ STEEL PROCESS VARIES FROM THIS STANDARD TECHNOLOGY

This specification has been prepared for long steel products used in construction. This product category closely aligns with manufacturing via a mini mill using an EAF and products with a high recycled steel content that are available in the New Zealand market. This specification has been prepared first as the issues associated with long steel products produced with EAF steel production are less complex than flat steel produced based on steel production at integrated mills. Also, there is a high level of stakeholder interest in developing a specification for recycled content steel.

This specification includes galvanising or metal alloy coating and surface passivation, but does not cover paint coating systems for steel, except where this steel has been painted to prevent surface corrosion during storage and transport.

## 2.5 Life-cycle issues

As with all ECNZ specification development work, the life cycle approach for developing this specification has started with a comprehensive, but overview level of evaluation of the whole of life cycle of steel products. The approach has then focussed on those parts of the life cycle and issues most relevant to demonstrably differentiate products within the defined product category – long steel products for construction. As a result of this approach, the upstream boundary of the lifecycle for which environmental criteria are set in this specification is the point at which ferrous scrap, coal and lime pass through the gate. There are environmental aspects associated with extraction of limestone and coal (e.g. habitat destruction), however these are considered less significant for long steel products (which, in the New Zealand market are primarily manufactured in an EAF) than for flat steel products for construction (which are manufactured in Integrated steel mills. This is because the relative amounts of coal and limestone are quite small (e.g. the dominant energy source in an EAF is electricity compared to coal or coke in an integrated mill). The specification considers aspects of lifecycle downstream of the plant gate including waste issues and recyclability.

## 3. INTERPRETATION

**“Basic Oxygen Furnace”** or **“BOF”** means a steel-making furnace that refines molten iron into steel by injecting hot oxygen to drive off impurities.

**“Electric Arc Furnace”** or **“EAF”** means a steel-making furnace that uses high-energy electric arc to melt ferrous scrap, for refining into new steel.

**“Energy Management Programme”** means a program to achieve and sustain efficient and effective use of energy including policies, practices, planning activities, responsibilities and resources that affect the organisation’s performance for achieving the objectives and targets of the Energy Policy.

**“Environmentally hazardous material”** means any material, chemical or other substance that if released into the natural environment will threaten human or environmental health.

**“Galvanised”** means steel (roll or coil) which has a thin layer of zinc deposited on its surface, through a hot-dip or electrolytic process, for the purpose of increasing the steel’s corrosion resistance. For the purpose of this document, “galvanising” also includes treatments with zinc-iron, zinc-aluminium or other similar zinc-based mixtures.

**“GEN”** means the Global Ecolabelling Network.

**“Halogenated organic compound”** means any organic compound incorporating halogens including fluorine, chlorine, bromine and iodine.

**“Hazardous Heavy Metal”** means mercury, lead, cadmium, hexavalent chromium and their components.

**“Label”** means the Environmental Choice New Zealand Label.

**“PCBs”** mean Polychlorinated Biphenyls

**“Raw material”** means a material used in the manufacture of steel.

**“Recycled or Recovered Content”** includes:

- **Post-Consumer:** Material generated by households, or by commercial, industrial and institutional facilities in their role as end-users of the product, which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.
- **Pre-Consumer:** Material diverted from the waste stream during a manufacturing process. Excluded is re-utilisation of materials such as rework, generated in a process and capable of being reclaimed within the same process that generated it.

**“Rolling 12-month average”** means that recycled content must be determined from the average recycled content taken over *any* continuous twelve-month period of steel production. This average must also be determined specifically from the manufacture of the product being licensed, and not from the steel production facility’s overall steel output.

**“Slushing Oil”** means a treatment applied to galvanised steel coil to prevent surface oxidation.

*Where references are made in this document to published lists, standards, or documents, the reference should be read as referring to the most recent edition of these lists, standards or documents.*

#### **4. CATEGORY DEFINITION**

This category applies to long steel products for construction and steel manufactured for long steel products.

This category includes:

- Steel for construction products, e.g.:
  - Steel bar and coil
  - Steel wire rod
- Finished long steel construction products
  - Steel bar and rod, such as reinforcing bar or rod
  - Steel wire and wire products, such as nails, reinforcing wire, etc.
  - Steel seamless pipe, tube and associated fittings
  - Steel flats, angles and channels
  - Welded wire mesh.

This category does not apply to products that have been made from assembled elements.

The category applies to products that have been galvanised or otherwise surface treated.

This category does not apply to products that have been painted, except where this steel has been painted to prevent surface corrosion during storage and transport.

To be licensed to use the Label, the steel product must meet all of the environmental criteria set out in clause 5 and product characteristics set out in clause 6.

## **5. ENVIRONMENTAL CRITERIA**

### **5.1 Legal Requirements**

#### ***Criteria***

The product must comply with the provisions of all relevant environmental laws and regulations that are applicable during the product's life cycle.

#### ***Verification Required***

Conformance with this requirement shall be demonstrated by providing a written statement on regulatory compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by documentation identifying the applicable regulatory requirements and demonstrating how compliance is monitored and maintained.

#### ***Explanatory Notes***

Relevant laws and regulations could, for example, include those that relate to:

- Producing, sourcing, transporting, handling and storing raw materials and components for manufacture;
- Manufacturing processes;
- Handling, transporting and disposing of waste products arising from manufacturing;
- Transporting product within and between countries; and
- Using and disposing of the product.

The documentation required may include, as appropriate:

- Procedures for approving and monitoring suppliers and supplies; and
- Information provided to customers and contractors regarding regulatory requirements.

It is not intended to require licence holders to accept increased legal responsibility or liability for actions that are outside their control.

## 5.2 Raw Materials

### *Criteria*

The ferrous feedstock must comprise:

- a) A minimum total recycled content of greater than 95 % based on a rolling 12-month average; and
- b) A minimum total post-consumer content of 50%, based on a rolling 12-month average.

AND

- c) Procedures must be implemented to exclude feedstocks containing undesirable materials, including:
  - i. Radioactive materials
  - ii. Polychlorinated Biphenyls (PCBs)

### *Verification Required*

Conformance with this requirement shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by:

- Documentation on procedures and standards for selecting pre and post-consumer steel that is to be incorporated in the product; and
- Documentation on procedures and standards for excluding feedstock containing undesirable components.

## 5.3 Hazardous Substances

### *Criteria*

- (a) Licence holders must report annually to ECNZ on hazardous heavy metals in the steel product, including:
  - Results of analysis of hazardous heavy metals (lead and cadmium) concentrations in the steel; and
  - Initiatives taken to minimise levels of hazardous heavy metals in the steel.

AND

- (b) The steel products shall not be treated with:
  - Compounds containing mercury, lead, cadmium, hexavalent chromium, arsenic or their compounds (except as allowed under clause c)
  - Halogenated organic compounds

- Any chemicals that are included in the International Agency for Research on Cancer (IARC) lists for proven (Group 1) or probably (Group 2A) carcinogens.
  - Slushing oil
- (c) Zinc and zinc alloy coated steel may be passivated with chromate solutions containing hexavalent chromium (chrome 6+). Licence holders must report annually to ECNZ on measures to reduce and, where possible eliminate chromate passivation, including:
- Total volume of chromate solution used;
  - Total quantity of steel passivated using chromate solution;
  - The findings of any investigations undertaken into alternatives to chromate passivation;
  - A proposed programme for future investigations into alternatives to chromate passivation.

Note: Clause 5.3 (b) means that steel products that are not zinc and zinc alloy coated steel products may not be passivated with chromate solutions containing hexavalent chromium (chrome 6+). Clause 5.3 (c) has been included as there are currently no viable and environmentally preferable alternatives to chromate passivation for zinc and zinc alloy coated steel products. However, once alternatives are commercially available, ECNZ intends to entirely prohibit the use of chromate passivation.

### ***Verification Required***

Conformance with these requirements shall be demonstrated by providing a written statement on compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. The statement shall be supported by documentation that includes:

- A description of the policies, procedures and programmes in place to minimise undesirable heavy metals in the feedstock and finished product; and
- Testing results of heavy metal concentrations in steel undertaken in accordance with the relevant ISO or ASTM test methods.
- An annual report to ECNZ report on measures to reduce and, where possible eliminate chromate passivation (if applicable).

## **5.4 Process Emissions**

### **5.4.1 Effluents to Water**

#### ***Criteria***

- (a) The steel mill, rolling mills and finishing lines must have effective procedures and systems (including an annual improvement plan) in place to minimise emissions of oil and grease, suspended solids and metals in wastewater (including cooling water and stormwater if these contaminants may be present) discharged to the natural environment (natural water bodies, ocean or land).

AND

- (b) Discharges of contaminants to the natural environment (natural water bodies, ocean or land) from the steel mill, rolling mills and finishing lines shall be demonstrated to result in acceptable and environmentally sustainable level of impact on the quality of the receiving environment.

**Verification Required**

Conformance with this requirement shall be demonstrated by providing a written statement of compliance, signed by the Chief Executive Officer or other authorised representative of the Applicant company. This statement shall be supported by documentation that includes:

- A description of the methods and improvement plans used to control oil and grease, suspended solids and metals, and the efficiency of these methods and plans including monitoring results for suspended solids and metals, carried out using appropriate test methods. This should be reported annually to ECNZ.
- An independent assessment of the discharge quality and its impact on the receiving environment completed by a person or agency competent to complete such an assessment. The assessment may be based on the quality of discharge from the point at which the discharge from the site or any relevant combined or municipal waste collection and treatment system discharges to the natural environment; or from the plant in situations where the plant discharge is mixed with other organisations waste streams and the combined waste stream and its treatment before it is discharged to the natural environment is outside the control of the plant or licence applicant and suitable information is not available on the quality of the combined discharge.

**5.4.2 Point source emissions to air**

**Criteria**

- (a) Primary off gases from the EAF and secondary off gases (from scrap scharging, steel tapping and secondary metallurgy) must be captured to the extent practicable. The captured off gases must be directed to an offgas treatment system to control particulate matter.

AND

- (b) The air emissions of particulate matter from the EAF offgas treatment system shall not exceed 20 mg/m<sup>3</sup> (dry gas basis, 273 K, 101.3 kPa, 6% O<sub>2</sub>). Monitoring of particulate matter shall be reported annually to ECNZ.

AND

- (c) Emissions of dioxins and PCBs shall be measured at least annually and reported to ECNZ.

AND

- (d) Discharges to air from the kiln and ancillary processes shall be demonstrated to result in acceptable and environmentally sustainable level of impact on the quality of the receiving environment

***Verification Required***

Conformance with this requirement shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be accompanied by documentation that includes:

- Information on off gas capture and treatment processes to demonstrate compliance with (a)
- Results of continuous stack emission monitoring for particulate matter to demonstrate compliance with (b).
- Results of stack emissions testing for particulate matter undertaken at least annually in accordance with the relevant ISO, USEPA or ASTM test methods in order to verify/calibrate the results of continuous monitoring
- Results of stack emission testing for dioxins and PCBs undertaken in accordance with the relevant ISO, USEPA or ASTM test methods\_and calculations of the pollutant concentrations to demonstrate compliance with (c).
- A copy of the site's preventative maintenance plan for all air emission control equipment.
- An independent assessment of discharges to air identified in (d) and its impact on the receiving environment completed by a person or agency competent to complete such an assessment.

**5.4.3 Dust Management Plan**

***Criteria***

The steel manufacturer must have and implement a dust management plan covering all areas of the Mill operation including outside stockpiles and non-point source process emissions.

***Verification Required***

Conformance with these requirements shall be stated in writing and signed by the Chief Executive or authorise representative of the applicant company. This statement shall be supported by documentation, including a copy of the site dust management plan and records to show it is being effectively implemented.

**5.5 Energy Management**

***Criteria***

- (a) Electricity consumption in the EAF must not exceed 500 kWh / tonne of liquid steel, based on a rolling 12-month average.

AND

- (b) The steel product manufacturer must have and implement effective energy management policies and procedures and/or an energy management programme.

AND

- (c) Licence holders must report annually to ECNZ on energy management, including:
- Total energy use;
  - Breakdown of total energy use to types of energy used (electrical, chemical, fuel, etc);
  - Breakdown of energy use in the EAF, rolling mills and total energy use;
  - Energy use related to production;
  - Energy use related to distribution of steel and steel products;
  - Energy recovered in the form of heat or co-generation of electricity;
  - Initiatives taken to reduce energy use and improve energy efficiency; and
  - Initiatives taken to calculate and reduce embodied energy and CO<sub>2</sub> emissions associated with energy use.

#### ***Verification Required***

Conformance with this requirement shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be accompanied by documentation that:

- Describes the energy management policies, procedures and programmes; and
- Includes annual reports to ECNZ on energy use and management.

## **5.6 Water Management**

### ***Criteria***

- a) The EAF must use a closed loop cooling water system;

Note: The definition of a closed loop cooling water system includes blowdown and top-up with freshwater to maintain chemical concentrations and to replace water lost through evaporation.

AND

- b) The steel product manufacturer must have and implement effective water management policies and procedures and/or a water management programme (including improvement plans);

AND

- c) Licence holders must report annually to ECNZ on water management, including:

- Total water use;
- Breakdown of total water use to sources of water used;
- Water use related to production;
- Initiatives taken to reduce water abstraction and use, and improve water efficiency; and
- Initiatives taken to reuse process water on-site.

### ***Verification Required***

Conformance with this requirement shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be accompanied by documentation that:

- Describes the water management policies, procedures and programmes; and
- Includes annual reports to ECNZ on water use and management.

## **5.7 Waste Management**

### ***Criteria***

- a) The steel product manufacturer must have and implement effective waste management policies and procedures and/or a waste management programme (including improvement plans) covering manufacturing operations.
- b) Licence holders must report annually to ECNZ on waste management, including:
  - Quantities and types of waste recovered for reuse internally and externally;
  - Quantities and types of waste recycled internally and externally;
  - Quantities and types of waste disposed of to landfill;
  - Quantities and types of waste burned internally for energy recovery;
  - Waste generation related to production;
  - Initiatives taken to reduce waste generation and improve recovery/recycling of waste; and
  - All ferrous wastes must be diverted from the waste stream and recycled.

### ***Verification Required***

Conformance with this requirement shall be stated in writing and signed by the Chief Executive Officer or other authorised representative of the applicant company. **This statement shall be accompanied by documentation that:**

- Describes the waste management policies, procedures and programmes; and
- Includes annual reports to ECNZ on waste generation and management.

## **5.8 Storage of Raw Materials and Waste**

### ***Criteria***

- (a) The steel manufacturer must have and implement effective management policies, procedures and systems covering the appropriate storage and handling of raw materials, including steel scrap, solid wastes and environmentally hazardous materials. These procedures shall:
- Ensure any storage of steel scrap and other environmentally hazardous materials is located and managed to prevent contamination of surface water or land, including ensuring potentially hazardous liquids are banded.
  - Include a Spill Response Plan detailing procedures to identify, contain and clean-up any spill of potentially hazardous substances.

### ***Verification Required***

Conformance with this requirement shall be demonstrated by providing a written statement of compliance, signed by the Chief Executive Officer or other authorised representative of the Applicant company. This statement shall be supported by documentation that includes:

- Details, including photographs, of the location and type of storage facilities on site and the materials stored in each.
- A copy of the Spill Response Plan and records of test/drills, implementation and reviews.

## **5.9 Recyclability**

### ***Criteria***

Steel products must not be impregnated, labelled, coated or otherwise treated in a manner which would prevent recycling and in New Zealand or in the country where the product is used.

### ***Verification Required***

Conformance with these requirements shall be stated in writing and signed by the Chief Executive or authorised representative of the applicant company. Relevant test certificates and information sheets shall be supplied for review.

## **6. PRODUCT CHARACTERISTICS**

### ***Criteria***

The product shall be fit for its intended use and conform, as appropriate, to relevant product performance standards.

### ***Verification Required***

Conformance with this requirement shall be demonstrated by providing a written statement of compliance, signed by the Chief Executive Officer or other authorised representative of the applicant company. This statement shall be supported by documentation:

- Identifying the applicable standards, specifications and or consumer/customer requirements;
- Demonstrating how compliance is monitored and maintained (including quality control and assurance procedures); and
- Records of customer feedback and complaints.

## **7. REQUIREMENTS AND NOTES FOR ENVIRONMENTAL CHOICE LICENCE HOLDERS**

### ***Monitoring Compliance***

Prior to granting a licence, ECNZ will prepare a supervision plan for monitoring ongoing compliance with these requirements. This plan will reflect the number and type of products covered by the licence and the level of sampling appropriate to provide confidence in ongoing compliance with criteria. This plan will be discussed with the licence applicant and when agreed will be a condition of the licence.

As part of the plan, ECNZ will require access to relevant quality control and production records and the right of access to production facilities. Relevant records may include formal quality management or environmental management system documentation (for example, ISO 9001 or ISO 14001 or similar).

Licence holders are required to advise ECNZ immediately of any non-compliance with any requirements of this specification which may occur during the term of the licence. If a non-compliance occurs, the licence may be suspended or terminated as stipulated in the Licence Conditions. The licensee may appeal any such suspension.

ECNZ will maintain the confidentiality of identified confidential information provided and accessed during verification and monitoring of licences.

### ***Using the Environmental Choice Label***

The Label may appear on the wholesale and retail packaging for the product, provided that the product meets the requirements in this specification and in the Licence Conditions.

Wherever it appears, the Label must be accompanied by the words “Recycled Steel for Construction” or “Recycled Steel Construction Product” and by the Licence Number eg ‘licence No1234’.

The Label must be reproduced in accordance with the ECNZ programmes keyline art for reproduction of the Label and the Licence Conditions.

Any advertising must conform to the relevant requirements in this specification, in the Licence Conditions and in the keyline art.

Failure to meet these requirements for using the Environmental Choice Label and advertising could result in the Licence being withdrawn.

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