

Agricultural Waste Control Regulation – Wood Fired Boilers Policy Intentions Paper for Consultation

1. Introduction

The Ministry of Environment intends to revise the Agricultural Waste Control Regulation (AWCR), of the *Environmental Management Act* (EMA) and *Health Act*. The regulation establishes an agricultural waste control code of practice that sets out practices for using, storing and managing agricultural waste that will result in agricultural waste being handled in an environmentally sound manner.

The ministry's primary intention is to amend the regulation to establish consistent emission standards for wood fired boilers used in agriculture (see section 4 of this intentions paper). The ministry intends to undertake a more comprehensive review of the regulation in the next few years.

The revision process for the amendment consists of five phases:

1. **Scoping** – including a review of regulatory issues and current best management practices.
2. **Policy Intentions Paper for Consultation** – (intentions paper) outlining the ministry's proposed policy intent for the amendment, proposed content and any outstanding issues or questions.
3. **Consultation** – with affected stakeholders and the general public, using the intentions paper and response forms posted on the ministry website, and other means as required.
4. **Drafting** – preparation of legal language for consideration by the Minister and/or Lieutenant Governor-in-Council.
5. **Implementation** – training of ministry staff and external stakeholders, development of guidelines and/or best management practices.

The purpose of this intentions paper is to seek responses and comments from stakeholders and the public on the proposed amendment of the Agricultural Waste Control Regulation.

This intentions paper provides a summary of the ministry's mandate and objectives, background

information, proposed amendment to the regulation and information on the development of best management practices and assuring compliance. The paper also describes the avenues for providing comment on the proposed revisions.

The intentions paper, as well as further information and links to related legislation, are posted on the ministry's website. The information can be accessed by clicking on the address below, or from the Ministry of Environment homepage, by following the Environmental Protection Division and Environmental Management Branch links. See: <http://www.env.gov.bc.ca/epd/main/ema.htm>.

2. Ministry and Government Goals

The Ministry of Environment provides leadership in environmental management through innovative legislation and programs, compliance activities and shared stewardship initiatives. The ministry's mandate is to protect human health and safety, and maintain and restore the diversity of native species, ecosystems and habitats. The ministry's core business areas include environmental protection, stewardship and compliance, in support of the government's goals.¹

The development and enactment of the *Environmental Management Act* and its associated regulations facilitates implementation of outcome-based regulations that provide clear roles for governments and stakeholders, consistent performance standards, updated fee structures, decreased remedial and legal costs, and a greater focus on those not in compliance with regulatory requirements.

3. Background Information

The AWCR applies to all agricultural operations in British Columbia, however only a few sectors use supplemental heat, and even fewer use boilers (mainly greenhouse and mushroom operations). Wood boilers are used most commonly by the green-

¹ The ministry supports the government's objectives – to lead the world in sustainable management, with the best air and water quality, and the best fisheries management, bar none; to lead the way in North America in healthy living and physical fitness; and to create more jobs per capita than anywhere else in Canada (see www.bcbudget.gov.bc.ca/2006/sp/env).

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house sector. The province's greenhouse industry includes vegetable growers, floriculture and nursery operations. Most greenhouse operations are located in the Fraser Valley.²

4. Proposed Amendments to the Regulation

In support of government and ministry objectives, the ministry intends to amend the AWCR to allow fuels (biomass), in addition to wood and wood waste, to be burned in boilers that were previously described as wood fired boilers. New emission standards for boilers will also be introduced. The current emission limits for wood fired boilers is 180 milligrams of particulate per cubic meter (mg/m³) of emissions. This emission standard will be amended to lower the limits (based on boiler output) for medium and large greenhouse operations with small operations having a requirement to adhere to standard home heating restrictions (see Table 1 in section 4.3).

In addition, the ministry proposes to clarify that boilers fuelled by natural gas or propane are exempt from the proposed emission standards.

4.1 Definition of Biomass as a fuel

The proposed amendment will clarify what types of biomass may be used as fuel. The proposed definition of "biomass as a fuel" is vegetative material that arises from the harvesting and processing of agricultural or forestry crops and includes:

- Wood products including, but not limited to, wood pellets, hog fuel, mill ends, wood chips, bark, shavings or sawdust and industrial residue of wood that has not been treated with glue, paint or preservative, or contain foreign substances harmful to humans, animals or plants when combusted; (e.g. salt laden wood).

² See commodity and farm practices information sheets at: http://www.al.gov.bc.ca/ghvegetable/publications/documents/industry_profile.pdf; http://www.al.gov.bc.ca/ornamentals/overview_floriculture.htm; http://www.al.gov.bc.ca/ornamentals/overview_nursery.htm

http://www.ccme.ca/ourwork/air.html?category_id=97

- Vegetative agricultural products including but not limited to agricultural pellets, corn kernals, corn stalks, straw, seed hulls; and
- Other vegetative bio-energy sources.

Non-vegetative agricultural products such as manure from cattle, poultry, horses, hogs or municipal solid waste or recyclable post consumer waste paper will not be included under the definition of biomass as a fuel.

The proposed amendment will also clarify what is meant by wood waste with respect to the use of wood for plant mulch, soil conditioner, ground cover, on-farm access ways, livestock bedding and areas where livestock.

4.2 Exemption for Natural Gas

The proposed amendment will also clarify that natural gas or propane fired boilers are exempt from this regulation.

4.3 Proposed emission standards

The ministry intends to introduce new emission standards for biomass fired boilers under the AWCR based on boiler size. The proposed emission standards for the regulation are summarized in Table 1.

Table 1: Proposed Air Emission Limits

Boiler size (output)	Total Particulate Emission Limit (Maximum 20% Opacity)
Small boilers: Up to 1 MW	No measurement requirement – standard home heating restrictions ³
Medium sized boilers: From 1 MW to 3 MW	120 mg/m ³
Large boilers: > 3 MW	50 mg/m ³

³ see http://www.qp.gov.bc.ca/statreg/reg/E/EnvMgmt/302_94.htm

Agricultural Waste Control Regulation – Wood Fired Boilers Policy Intentions Paper for Consultation

The parameter that the ministry proposes to use to determine emission standards for biomass fired boilers is the weight of particulate matter in a given volume of air measured in milligrams per cubic metre (mg/m^3) under standard conditions of 20°C, 101.3kPa, dry gas and 8% O₂. The opacity limit will be 20 %.

These emission limits would not apply for the first 30 minutes of combustion unit start-up, or the 30 minutes prior to combustion unit shut down.

4.4 Monitoring and recording requirements

The proposed amendment would require the monitoring of emissions from all biomass fired boilers. For new units an operator would be required to undertake baseline monitoring and recording (stack testing) within six months of start up or provide a manufacturer's certificate containing equivalent emission performance data. For modified units where modifications would effect emission performance, baseline monitoring and recording would be required within six months of start up.

If the system is found to exceed the emission limits specified in the regulation, the establishment operator would be required to: immediately notify the ministry's regional manager of environmental protection; take corrective action; and re-monitor within six months after the corrective action has been taken.

Existing boilers that are found to have an opacity reading of greater than 20% will be required to undertake stack testing to ensure that the boiler is operating within the limits specified in the regulation. If the system is found to exceed the emission limits specified in the regulation, the establishment operator would be required to: immediately notify the ministry's regional manager of environmental protection; take corrective action; and re-monitor within six months after the corrective action has been taken.

Additional stack testing may also be requested of a facility owner or operator by a director.

5. Best Management Practices

The regulation will be supported by guidelines and/or "best management practices" (BMPs) that provide information regarding how agricultural operations can meet ministry goals for protection of human health and the environment, and operate in a manner that is consistent with the *Environmental Management Act*, regulations and codes of practice.

6. Assuring Compliance

6.1 Compliance promotion

The ministry will develop a strategy for the promotion of voluntary compliance with the requirements of this regulation, in cooperation with industry associations and other interests. Compliance promotion may entail training for ministry staff, as well as information and the development of best management practices for the operation of biomass fired boilers. If followed, the best management practices should lead to compliance with the regulation.

6.2 Compliance verification

The ministry's approach to assuring compliance with the regulation will include reasonable regular and random compliance reviews and inspections, as well as reviews and inspections in response to identified or potential issues or concerns regarding protection of the environment or human health.

The ministry is committed to using compliance verification data to guide the ongoing management of biomass fired boilers and assure the goals for environmental protection are being met.

6.3 Enforcement

The ministry response to non-compliance will entail written advisories, warnings, directives, tickets and prosecutions. The choice of response will be based on ministry-wide policy, the compliance history and the significance of the impact from the non-compliance occurrence.

Agricultural Waste Control Regulation – Wood Fired Boilers Policy Intentions Paper for Consultation

7. Providing Comment on the Proposed Amendment

The ministry is intending to finalize the amendment to the Agricultural Waste Control Regulation by September, 2007. Comments regarding the proposed intentions of the ministry are being solicited for a two week period. Following review of comments and submissions, the ministry will complete legal drafting of the amendment for legislative review and implementation.

Comments received will be treated with confidentiality by ministry staff and contractors. Please note that comments you provide and information that identifies you as the source of those comments may be publicly available if a Freedom of Information (FOI) request is made under the *Freedom of Information and Protection of Privacy Act*.

Those interested are invited to submit comments in writing to:

Email: EMAIPR@gov.bc.ca

Mail:

Agriculture Waste Control Regulation Team
Environmental Management Branch, Ministry of Environment
3rd Floor - 2975 Jutland Road
Victoria, BC, Canada V8W 9M1

Fax: (250) 387-8897

Comments to the ministry should be made on or before July 9, 2007

Thank you once more for your time and consideration!