

CLEANER GASOLINE REGULATION

INTENTIONS PAPER

SUMMARY OF PUBLIC COMMENT

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Summary of Public Comment – Cleaner Gasoline Regulation

Introduction

The Ministry of Environment intends to amend the Cleaner Gasoline Regulation (CGR) to address issues related to the distribution and wholesale purchase of ethanol blended fuel in British Columbia (B.C.).

The CGR was established under the *Environmental Management Act* which allows regulations to be made to protect human health and the environment, including those for the “purpose of preventing and reducing emissions from fuels and their combustion, including prescribing standards and specifications of fuels, providing for their testing and certification and specifying the quantities for and areas in B.C. where fuels must be made available.”¹

This report provides a summary of the stakeholder comments that were received as part of the consultation process for revision of the regulation.

Background to the consultation process

An intentions paper was posted for public review and comment on the ministry’s website (www.env.gov.bc.ca/epd/main/ip-list.htm) from August through September of 2009. The intentions paper provided background information regarding the requirements of the Cleaner Gasoline Regulation, a discussion of the ministry’s intentions for amendment of the regulation and a description of the process for providing comment to the ministry. A separate response form for providing comments or suggestions to the ministry was also posted on the website.

Purpose and format of the Summary of Public Comment document

This document has been prepared for the Ministry of Environment by C. Rankin & Associates, contracted by the ministry to independently receive, compile and review comment on the ministry’s intentions for revision of the regulation. The summary does not reflect the ministry’s position on any issue. It provides a synopsis of the responses that are being considered by the ministry in amending the regulation without specific attribution, except to the extent required to provide context for the comments. This summary of public comment does not include all detailed comments rather it attempts to capture the tenor and content of comments through summarization and specific excerpts from representative submissions.

The complete set of responses received through the consultation process has been compiled and passed to the ministry for detailed review and consideration. All comments and references submitted in this process, through independent submissions and through direct consultations with stakeholders, will be reviewed and carefully considered by the ministry in revising the regulation.

The summary of responses is arranged by topic as presented in the intentions paper. Direct excerpts from submissions are included in quotation marks (“ ”). Square brackets ([]) indicate in-

¹ EMA Chapter 53 Part 6 – Clean Air Provisions; www.bclaws.ca/Recon/document/freeside/--%20E%20--/Environmental%20Management%20Act%20%20SBC%202003%20%20c.%2053/00_Act/03053_06.xml#section73

ferred or contextual terms. An appendix of abbreviations and acronyms is provided in the final section of this document.

Description of responses received

Nine responses to the intentions paper were received (by e-mail, mail, fax and attached file), and have been reviewed for this summary of stakeholder comments. Respondents included representatives of gasoline distribution and retailing sectors, local and federal government agencies and advocacy associations, as well as individuals. Responses were generally focused and technical in nature – addressing the implications of ethanol blended fuel regulatory requirements in relation to government air quality and greenhouse gas reduction objectives.

Technical Discussion Issues

The ministry intentions paper (section 3) summarized the main requirements of the Cleaner Gasoline Regulation and noted that the Renewable Fuel Requirements Regulation (RFRR), mandating 5% average renewable fuel content for fuel supplied in B.C. (coming into full force in January, 2010), will result in an increase in blending of ethanol in fuels sold in the province.

The response form contained questions related to technical discussion issues set out in section 4 of the intentions paper under the headings: 1) Reid Vapour Pressure (RVP) waiver removal; 2) provision to allow the sale of high ethanol blend gasoline (E85) in B.C.; and 3) additional comments. This summary follows the headings and questions set out in the response form.

1. Reid Vapour Pressure (RVP) Waiver Removal

Response Form Question 1.1: With the B.C. Renewable Fuels Requirements Regulation coming into effect on January 1, 2010 (requiring a 5% average renewable fuel content by volume across B.C.) do you anticipate being able to meet the Reid Vapour Pressure (RVP) limits in the Canadian General Standards Board's (CGSB) standards (CAN/CGSB 3.5 CAN/CGSB 3.511) for areas outside of the Lower Fraser Valley (LFV)?

Several respondents who commented on this question expressed “support” for a three year notice period (to January 1, 2013) for removal of “the 7 kPa waiver” – to allow refineries the time necessary to secure applicable permits and re-engineer refinery configuration to manufacture fuel to Canadian General Standards Board (CGSB) standards.

One respondent noted that “many” terminals where gasoline distributors obtain fuel stock “will be making ethanol blended gasoline available at a 10% ratio...as of January 1, 2010...however there will be no ethanol available at any of the terminals on Vancouver Island [putting regional companies] in a difficult position.” Another respondent noted that “the addition of ethanol to reformulated blendstock for oxygenated blending (RBOB) to make regular (87 octane) gasoline will not exceed the RVP specification [however] a potential non-compliant situation may occur when...gasoline purchased for blending with ethanol may have high RVP [which] may cause ethanol-blended gasoline to exceed the RVP levels in the regulation.” These two respondents

recommended expanding the RVP waiver to areas outside of the Lower Fraser Valley to support the government's renewable fuels strategy – supporting the addition of “ethanol to all grades of gasoline” or “to allow splash blending of ethanol year-round [in specific regions such as Vancouver Island].”

One respondent provided a “minor technical comment [that] the gasoline industry in North America discontinued using the Reid Vapor Pressure test about ten years ago” and recommended updating related references in the regulation.

Response Form Question 1.2: With the B.C. Renewable Fuels Requirements Regulation coming into effect on January 1, 2010 (requiring a 5% average renewable fuel content by volume across B.C.) do you anticipate being able to meet the Reid Vapour Pressure (RVP) limits in the Lower Fraser Valley (LFV) if the waiver for the LFV in the CGR is removed as proposed commencing January 1, 2013?

Respondents who commented on this question provided the following detailed remarks:

- “Members [of our association] would be able to meet the regulatory requirement without [a] similar waiver to the LFV during the summer months”;
- “Compliance to the 55 kPa vapour pressure (VP) is extremely difficult, even with reconfiguration of refinery facilities and processes – we would suggest consideration for maintaining the VP at 62 kPa for the summer period”; and
- “[Our company] will be able to meet the requirement if RBOB is available from suppliers – we will still require a province-wide, year-round, RVP waiver to blend ethanol into mid-grade and premium grade gasoline.”

Response Form Question 1.3: Do you have any comments regarding the modeling exercise that the intergovernmental working group undertook to assess potential air quality impacts of changes to the regulation?

Several respondents noted that they could not offer comments due to “the limited information [regarding the work of the inter-governmental working group] that is available.” One respondent commented that “concerns over increased volatile organic compound (VOC) emissions on a typical summer day are shared by Metro Vancouver, and are a valid reason for removing the waiver.” Another respondent suggested that a modeling scenario “that envisioned only a 5% ethanol [blend] in all gasoline is unlikely to represent what will actually happen and...is irrelevant to the waiver since ethanol blended at 5% would not have qualified for the exemption.” The respondent recommended expanding the modeling work “to consider the implications of a 10% blend.”

Response Form Question 1.4: Do you have any other specific comments regarding the proposed removal of the RVP waiver and how it will affect you?

Several respondents provided detailed comments in response to this question. Respondents commonly expressed concern that elements of the Cleaner Gasoline Regulation could restrict or reduce the use of ethanol, contrary to the intent of the Renewable Fuels Requirements Regulation. Comments and questions related to: consideration of “mid-grade” and “premium” gasoline blends; point(s) of compliance for the regulation (e.g., primary terminals, point of entry into Canada, point of blending, point of retail sale); and seasonal RVP requirements in different regions of the province. One respondent noted that “in other provinces with ethanol mandates, the standard practice by many suppliers has been to include 10% ethanol in regular gasoline and none in premium gasoline.” Another commented that “without a province-wide, year-round RVP waiver, [our company] will have the same product slate as industry, resulting in less ethanol blending and fewer grades of ethanol blended gasoline.” The respondent requested “extending the RVP waiver to encompass the entire province for the year in order [to enable the addition of]...ethanol to all grades of gasoline.”

2. Provision to Allow the Sale of E85 in B.C.

Considerations related to enabling the sale of high ethanol blend gasoline in B.C. are discussed in section 4.v. of the intentions paper.

Response Form Question 2.1: Do you have any comments or suggestions regarding the distribution and sale of high blend ethanol fuels (such as E85) in B.C.?

Several respondents commented that a Canada-wide standard for automotive ethanol fuel (“CAN/CGSB 3.512”) has “now passed committee...and should [soon] be published.” These respondents did not support “B.C. parsing sections from existing CGSB standards in order to facilitate E85 in the province” and rather recommended that “B.C. should confirm with CGSB management an expected time for publication [and]...avoid the need for any partial reference to CGSB.” Another respondent representing a Canadian association expressed support of the organization for “the sale of E85 across Canada” and noted that “while there is work underway to develop a CGSB standard for E85, it may be some time before it is passed, and we would therefore recommend that regulations not require compliance with a CGSB standard before E85 can be sold in B.C.”

Several respondents commented on technical issues regarding high ethanol fuels or flexible fuel vehicles (FFVs) that may limit or negate the intended positive effects of high blend ethanol fuels. Specific comments included:

- “The only way that vehicles could be designed to take full advantage of the potential benefits of ethanol as a fuel would be to make the vehicles solely for ethanol fuel (or E85 only) – this would result in severe limitations (supply of E85 fuel) and lower temperature

operability (which rules out most of Canada for most of the year, unless the vehicles were designed with liquid fuel injection along the lines of a diesel engine)”;

- “Flexible fuel vehicles (FFVs)...cannot take advantage of the higher octane and better ‘combustion properties’ of ethanol because the vehicles still have to be able to operate on 100% gasoline...so the bottom line is that FFVs...do not have better efficiency or take advantage of the attributes of ethanol”;
- “My research concludes that E85 has more problems than solutions – a better way to reduce gasoline and other fuel consumption is to mandate higher vehicle fuel efficiencies”;
- “Having used gasoline containing ethanol in a modern car, I saw from the fuel consumption readings that I experienced an increase in fuel consumption when using this fuel – it seemed to me that for a 5% addition of ethanol, I used about 5% more fuel...[an industrial chemist has commented that] ‘ethanol has a lower calorific value than typical hydrocarbons, so MPG (miles per gallon) will suffer as the mixture needs to be richer and it is more viscous and more dense so it could have carburation consequences’ ...[this proposal to sell high blend ethanol fuel would] reduce the efficiency of our automobiles and waste fuel and the public’s money”;
- “The Intentions Paper does not address the ‘food for fuel’ issue...until ethanol (EtOH) can be derived from agricultural wastes, the primary source of supply will originate from agricultural food sources...[also] ethanol is an ARET B-3 and an NPRI 4 and 5 substance – the increased use of EtOH is contrary to Federal intentions to reduce the use of these substances...[furthermore] the purposeful increase of VOCs from a fuel, while other smaller market products are targeted for VOC regulation...makes little environmental/health and safety sense...until [a] standard [for a variable E-85 through the CGSB} is ready, it may not be in government interest to pursue its formal introduction as a non test fuel – it would [also] be interesting to know whether EC and Health Canada have been consulted”;
- “Questions: Is B.C. ready with all the infrastructure requirements for the E85? Is there a reliable, sustainable source for the E85 needed for a larger scale implementation? How will the Province overcome the legal aspect of ‘pointing to specific sections of the CGSB 3.511 standard’ instead of the standard as a whole?”

3. Additional Comments

Response Form Question 3.1: Do you have any additional comments regarding the proposed amendments to the regulation and the regulation in general?

Specific comments made in response to this question included:

- “[Members of our association] seek confirmation that the point of compliance must continue to be at the terminal facility and apply to all gasoline products and parties who pick up at those terminals...also...[our organization] strongly recommends that the 7 kPa waiver removal should commence Jan 1, 2013”;
- “An RVP waiver that applies to Vancouver Island would help to ensure [our company] can comply with the Renewable Fuel Requirements Regulation”;

- “Volatile Organic Compounds (VOCs) should not be the only benchmark for removing the waiver – ethanol is a renewable resource and blending it into gasoline promotes more complete combustion leading to lower carbon monoxide emissions”;
- “Regulations [should] reference CGSB standards, including CAN/CGSB-3.512 for E50 – E85, rather than extracting parts of 3.511 to allow use of ethanol”;
- “E85 has more problems than solutions – a better way to reduce gasoline and other fuel consumption is to mandate higher vehicle fuel efficiencies”;
- “[Our federal department] utilizes Flex-Fuel Vehicles (FFVs) in our commercial fleet, and these vehicles would have access to the commercially available fuels as would all other commercial vehicles – the extent of impacts from increases in supplier pricing and possible additional infrastructure costs are ‘unknowns’ at this time.”

Response Form Question 3.2: Do you have any comments for the ministry in relation to the regulation of clean burning gasoline and renewable fuels?

Specific comments made in response to this question included:

- “[Members of our association] believe the introduction of the renewable fuels regulation AND the proposed low carbon fuel standard will be creating a complicated and administratively burdensome situation in B.C. – both regulatory frameworks are utilizing the same deliverables for much of the stated similar goals and the petroleum industry must appropriately balance two sets of regulatory framework in parallel – this approach, we believe is unnecessary and could be accomplished with one “smart” framework”;
- “The introduction of both the Renewable Fuel Requirement Regulation and the proposed Low Carbon Fuel Standard will be creating a complicated and administratively burdensome situation in B.C. – it will be onerous for companies to report on and pay penalties for two different regulations that are intended to meet the same objectives”;
- “[We] note that the upcoming B.C. Renewable Fuel Requirement Regulation will mandate a minimum 5% renewable fuel content for fuels in B.C., and that GHG emissions will be reduced – has the province indicated what this requirement will mean for emissions of particulate matter for diesel-fuelled vehicles (i.e. a PM reduction) and by how much?”

Appendix A: Acronyms and Abbreviations

| Acronym or Abbreviation | Definition |
|--------------------------------|---|
| ARET | Accelerated Reduction/Elimination of Toxics (program) |
| B.C. | British Columbia |
| CER | Certified Emission Reduction |
| CH ₄ | Methane |
| CGR | Cleaner Gasoline Regulation |
| CGSB | Canadian General Standards Board |
| E85 | An alcohol fuel mixture that typically contains a mixture of up to 85% denatured fuel ethanol and gasoline or other hydrocarbon |
| EPA | (United States) Environmental Protection Agency |
| EtOH | Ethanol |
| FFVs | Flexible Fuel Vehicles |
| GHG | Greenhouse Gas |
| kPa | kilopascal |
| LFV | Lower Fraser Valley |
| MOE | Ministry of Environment |
| MPG | Miles per gallon |
| NPRI | National Pollutant Release Inventory |
| PM | Particulate matter |
| RBOB | Reformulated blendstock for oxygenated blending |
| RFRR | Renewable Fuel Requirements Regulation |
| RVP | Reid Vapour Pressure |
| VOCs | Volatile Organic Compounds |
| VP | Vapour pressure |