

2010 NATIONAL BIO-DIESEL CONFERENCE

November 16, 2010 Chateau Laurier Hotel, Ottawa, Ontario

*Regulation, Supply, Distribution, and
Impact for the
Transportation Industry*



FINAL REPORT



OVERVIEW

The Van Horne Institute and the Railway Association of Canada co-presented The National Biodiesel Conference to share information on the technical and policy implications of the pending federal renewable fuels regulations on Canada's transportation industry.

The goal of the conference was to provide information on the regulatory framework, to generate an understanding of the expected demand for biodiesel, to understand the impact of the regulations on operations of transportation service providers as well as the impact of the regulations on transportation equipment manufactures, and to discuss potential solutions for the biodiesel supply, cost, availability, distribution, and standards.

Federal Government Overview

Lorri Thompson, Environment Canada, outlined the Federal Government's goals, which include reducing greenhouse gas emissions from fuel use, encouraging greater domestic production of biofuels, accelerating the commercialization of new biofuel technologies, and providing new market opportunities for agricultural producers and rural communities.

She told conference attendees that the regulations require "primary suppliers" (petroleum fuel producers and importers) to have an average renewable content of at least 5% based on their volume of gasoline, commencing on December 15, 2010. She said that there are provisions for a 2% average renewable content requirement in diesel fuel and heating distillate oil, and that the RIAS indicates this is to be implemented by 2011 or earlier, subject to technical feasibility.

Regulations do not apply to individual facilities or provinces of import, she noted, and regulations include limited exceptions. She told participants that the 5% requirement for gasoline may be met by renewable content in gasoline, diesel fuel or other liquid petroleum fuels, and that the 2% requirement for diesel fuel and heating distillate oil must be met through the use of renewable content in those products. Dates to be aware of include:

- December 15, 2010: Start of gasoline requirement
- February 19, 2011: End of transitional period for measurements and report on measurement methods
- December 31, 2012: End of first gasoline compliance period
- Early 2013: First compliance period reports are due
- To be determined: distillate requirements

Further information on the regulations can be found [here](#).

Biodiesel Testing Programs

John Rillet, Vice President, Climate Change Central, reported on the Alberta Renewable Diesel Demonstration, which was the first Canadian on-road demonstration of cloud point adjusted renewable diesel blends using ultra low sulphur kerosene for cloud point adjustment and both biodiesel (FAME) and hydrogenation derived renewable diesel (HDRD). The project was a partnership struck between the fuel and trucking industries and the provincial and federal governments, and managed by Climate Change Central. The study confirmed that project-specific blends cloud point adjusted B2 was fully operable in Alberta's winter conditions in the study area (Lethbridge to Lloydminster and Grande Prairie), that B5 was fully operable in shoulder and summer seasons, can work in Canada and that fuel quality and performance can be maintained throughout Canada's supply chain.

Grete Bridgewater, Canadian Pacific, presented CP's biodiesel test. The objectives of the study were to assess locomotive in-service performance and the condition, maintenance and replacement frequency of engine components and heating systems in cold weather. CP found that there were no service interruptions or operational issues with engines and no adverse impacts on locomotive engine performance.

Jan Michaelson, Program Leader, Energy and Emissions, FPInnovations, outlined a biodiesel demonstration project in the forestry and construction industry, and concluded that no changes to the current fuelling practices and infrastructure are required for storage periods of six months or less, that machines maintained in accordance with OEM specifications experienced no problems, and that in-line blending as performed at the refinery/bulk terminal is preferred to do-it-yourself blending and/or splash blending.

Biodiesel Supply and Distribution

Speakers in this session agreed that there is adequate supply of biodiesel to meet the mandate, that domestic sources of biodiesel are still evolving in Canada, and that the distribution infrastructure required is not ready.

Al Rickard, Rothsay Biodiesel, shared that there is ample supply and flexible and robust government support to meet the supply required, and Paul Lansbergen, Forest Products Association of Canada, said that there is sufficient forest residues in Canada to supply B5 to supply the entire country.

Gilles Morel, Canada Petroleum Products Institute, reported that according to the Natural Resources Canada's National Renewable Diesel Demonstration Initiative, a combined total of 32 facilities are needed, with the early ones being in Western Canada (in 9-12 months) to satisfy the Provincial Mandates enacted in 2008 and 2009, and that additional facilities needed to meet the Federal mandates are as follows: West, 3; Central, 6; and Eastern, 7.

Transportation Engine Testing and Biodiesel Standards Development

Manuel Vasquez, Director, Engine Systems Development Centre, explained that, based on locomotive engine testing, five percent biodiesel blends could maintain engine baseline power and fuel economy with additional benefits of reduced smoke emissions.

Ken Mitchell, Fuels Product Quality Excellence Lead, Shell Canada, told National Biodiesel Conference participants that the existing system and process for developing fuel standards in Canada is the appropriate way to develop standards for both renewable fuels and their blends to ensure that their introduction is successful. He noted that the Standards Council of Canada (SCC) accredits Standards Development Organizations (SDOs) in Canada to write National Standards of Canada. National Standards of Canada are required to meet numerous criteria, some of which include advancing the national economy, supporting sustainable development, assisting and protecting consumers, and facilitating trade.

Industry Response to Proposed Federal Regulations

This session featured representatives from the motor coach, trucking, and railway industries, who shared their views on the proposed federal regulations for biodiesel.

Normand Pellerin, VP Environment, CN, outlined several needs of the railway industry. He noted that Canadian railways use 2.1 billion liters of diesel, and in 2011, 42 million litres are needed to meet requirements. He expressed concern that legislation is “at the door step” while industry is still testing the impact of biodiesel on engines, and said that the variance in regional requirements is an additional concern. Normand explained that CN cannot blend biodiesel in their fueling facility, that there is limited ability to add or modify the blend in changing seasons, and that CN wants to be able to import diesel without limitation.

Mark Begg, Manager, Delaney Bus Lines Ltd, pointed out several concerns of the motor coach industry. He said that there are approximately 3,000 motor coaches in Canada, many of which travel to remote and cold weather locations, and that engine manufacturers have not provided assurance for warranties. Furthermore, the cost of implementing the biodiesel regulations will be passed to consumers. Mark argued that there are better ways to address environmental concerns than imposing biodiesel regulations.

Stephen Laskowski, Senior Vice President, Canadian Trucking Alliance, suggested that supply and distribution solutions have not matured to the point of meeting needs, and questioned why the government wrote regulations before ensuring fuel standards. Additionally, he stated that the regulations are a subsidy for farmers and the biodiesel industry.

S u m m a r y

The conference received positive feedback from speakers and attendees, and a similar conference is being considered for the future. Speaker or sponsorship inquiries for future conference should be directed to Julia Stickel, Manager of Strategic Development & Member Relations, Van Horne Institute, at 403-220-2114 or jstickel@ucalgary.ca.

All conference presentation are available [here](#).

A b o u t t h e V a n H o r n e I n s t i t u t e

The Van Horne Institute is recognized within Canada and internationally as a leading institute of public policy, education, and research in transportation, supply chain and logistics, and regulated industries. The Institute assists industry, government, and the public in addressing issues affecting transportation, supply chain management/logistics and regulated industries that are relevant to the well-being and growth of industry and commerce.

www.vanhorne.info

A b o u t t h e R a i l w a y A s s o c i a t i o n o f C a n a d a

The Railway Association of Canada represents some 50 freight, inter and intra city passenger, short line and regional railways - virtually all railways in Canada. The RAC is the one voice of Canadian railways.

www.railcan.ca