The International Joint Commission
Canada and United States

Written Comments received in response to the 2010 Progress Report under the Canada-United States Air Quality Agreement

Submissions received to date:

Brian Creek
Chris Cook, Victoria, British Columbia
Kevin McCullum, Chief Engineer, Saskatchwan Ministry of Environment
Helen Krouse, Principal Investigator, Geospatial Determinants of Health Outcomes Consortium
Gordon Dalzell, Chairperson, Saint Johns Citizens Coalition for Clean Air

Brian Creek
Received June 10, 2011

Lakers and Salters

Just read the newly released Air Quality Agreement Progress Report and was surprised that Salters were targeted for a reduction in sulfur, nitrogen compounds and particulate matter, but that Lakers were not. Given that lakers are bigger, older and burn bunker which is a very high sulfur fuel, how did they get a free pass?

Attached:

Just How Dirty Are Great Lakes Freighters?

The Round River

Written by JP Savage on November 21st, 2009

The dirtiest remaining industrial polluter in the Midwest floats. It is the fleet of 133 giant lake freighters (Lakers) that hauls bulk material like salt, iron ore, coal, limestone, and grain up and down the Great Lakes to ports in both the USA and Canada, passing close to the greatest concentrations of people in the Midwest. In performing its job of enforcing the Clean Air Act the US EPA has proposed new regulations that will require that the Lakers clean up their act, saving 33,000 lives a year and reducing smog throughout the heartland. You might think that the EPA had a pretty good idea here. Not everyone would agree.

The Lake Carriers' Association, the Lakers' trade group, says that they know that the Lakers are dirty. They really think that the idea of clean air is generally good, just not when it costs them money. Now they are calling on their friends in congress and the Canadian government to make the big, bad EPA leave them alone.

At the center of this issue is the fuel that the Lakers burn, "bunker fuel," or simply "bunker" for short.

Wikipedia says, *"**Bunker fuel** is technically any type of fuel oil used aboard ships. It gets its name from the containers on ships and in ports that it is stored in; in the days of steam they were coal bunkers but now they are bunker-fuel tanks."* So when they switched to the tar-like petroleum residue they now use, they kept calling it bunker, presumably because they don't like to change.

Today's bunker fuel is in a class of fuels called "residual fuel oils," meaning the gunk that is left over after they make other fuels like gas and lighter diesel, kerosene, naphtha, etc. It is so thick that it must be heated to flow, and burns so dirtily that the boilers have to have the soot cleaned out of them daily. In addition to the nitrogen oxide (think smog) and soot, bunker produces 174 tons of CO2 per one million BTUs produced, and contains **30,000 parts per million (ppm) of sulfur**. The fuel semis use contains just 15 ppm sulfur and produces 161 tons of CO2 per million BTUs.

An article from today's Washington Post points out,

Large vessels rank second only to power plants as to the health risk their air pollution poses, and the EPA estimates the proposal will produce more health benefits than those it has applied to off-road vehicles, diesel trucks and other sources. Without further regulation by 2030, the agency projects that smog-forming nitrogen oxide emissions from the ships will more than double, to 2.1 million tons a year.

Almost as troubling is that, according to Wanda Fabriek, International Fuel Executive of Intertek Oil, Chemicals and Agri, writing for **Bunker World,** *The chemistry of residual fuels is probably the most complex of the oil barrel and some of the components of the final blend are, it must be accepted, resultants rather than controlled fractions. Furthermore, as the various specification grades of residual fuels are not blended at the refineries the particular chemistry of the vast variety of possible cutter stocks available to the supply chain also needs to be added to the total unknown.*
So exactly *what* is coming out of the stack isn't known.
What is known is that burning bunker fuels should be a crime. One of our most pristine and remote national parks, Isle Royale in northern Lake Superior, has smog issues! And remember that what goes up must come down, so eventually the air-borne pollutants will become water pollution.
Yes, this new rule would cost the Laker industry money. (They will also enjoy some cost savings by burning a cleaner fuel that is a liquid at ambient temperatures, requiring less boiler maintenance and no pre-heating equipment maintenance.) Every other industry in the country has had to clean up its act, why should these guys get a pass? They maintain that the costs to retrofit or build new Lakers will cause them to be priced out of the bulk hauling business. The fact is, no other form of transportation can even come close to the efficiencies and volumes that a lake freighter can for hauling bulk materials, and all of their customers are already set up for receiving goods from these freighters. Allowing them to continue to be one of the worst polluters in the country is unconscionable from an environmental and public health standpoint and gives them an unfair business edge on the commerce side.
It's time that these industrial polluters were required to come into the 21st century and do their part for the Great Lakes region's health and well being. After all, if it weren't for these lakes they wouldn't exist, and for them to see the lakes only as their private seaway is arrogant in the extreme. There are millions of other residents and visitors who use the lakes for a variety of reasons that do not depend upon the Lakers, but do depend upon clean air and clean water.
Will you please take a minute to contact your Senators or Representative in DC and tell them that an exemption for this industry is not consistent with the long-term health of our region or the planet?

Chris Cook
Victoria, BC
Received July 28, 2011

Weather Modification re: Cross Border Aerial Spraying of Toxic Elements

We in Victoria are concerned by the aerial application of chemical sprays rumoured to be an effort to modify weather. These flights have been monitored for several years here, but we seem to get no satisfaction from official sources when asking for explanations of the purpose and constituent elements of the material being sprayed upon us.

Does this body have the authority to discover what we are being sprayed with, and will it follow through with investigation as to the possible negative health and environmental effects of it?

The link will lead you to documentation. http://www.facebook.com/pages/ESTEES-SKY-WATCH-IN-VICTORIA-BC/1256475174...

Sincerely,

Chris Cook

United States – Canada, Air Quality Agreement Progress Report 2010

The following comments/questions represent observations from the Saskatchewan Ministry of Environment with respect to the Canada-United States (US) Air Quality Agreement 2010 Progress Report (document reviewed Aug 5-9, 2011):

- The strategies identified for transportation emission reductions did not identify the Air Quality Management System (AQMS) or the Comprehensive Air Management System (CAMS). Will future reductions/emissions of mobile sources be addressed as part of the AQMS in this agreement?
- Are there plans for a "national cap" from large fossil fuel-fired power suppliers, similar to that proposed in the Pollutant Emission Management Area (PEMA)?
- Based on the proposed reductions from the Canadian electrical utilities as part of the AQMS - Base level industrial emissions requirements (BLIERs), are there similar proposals in reductions of emissions from US electrical generators?
- Are there future plans to "align" the US standards and Canadian standards into a common, comprehensive North American Standard? For example, the Canadian $PM_{2.5}$ 24-hr standard set currently at 30 µg/m³ (average of 98th percentile values for 3 years), and the US standard currently set at 35 µg/m³ (average of 98th percentile values for 3 years).
- It was identified that the lowest regional critical loads occurred in areas downwind of the oil sand industry. Will Canada be pressed by the United States, through this agreement to reduce emissions within a sector, such as the oil sands?
- Should the report include Canada and the US plans to reduce emissions from new passenger automobiles, light trucks and heavy-duty vehicles and the alignment of Canada's and the US's vehicle regulations? The transportation sector accounts for 25 and 27 per cent of Canada's and the US's greenhouse gas (GHG) emissions. Reducing emissions in this sector will help Canada and the US achieve their 2020 target of a 17 per cent reduction in GHG emissions from 2005 levels. Canada announced final regulations in 2010 to establish progressively more stringent GHG emission standards for new passenger automobiles and light trucks for the 2011-2016 model years.
- There is limited information on the impacts of climate change on air quality in the Canada-US air quality agreement progress report.

WAYNE STATE UNIVERSITY
College of Nursing
Room 146 Cohn
5557 Cass Ave.
Detroit, MI 48202

September 7, 2011

Secretary, Canadian Section
International Joint Commission
234 Laurier Avenue West, 22nd Floor
Ottawa, Ontario K1P 6K6

Secretary, United States Section
International Joint Commission
2000 L Street NW, Suite 615
Washington, DC 20440

Re: Comments on the Air Quality Agreement and 2010 Progress Report

Gentlepeople:

The International Joint Commission plays a unique role in the coordination and support of international initiatives relevant to science, education, and policy. Without such a body, many projects would not be possible due to funding and logistical restrictions. The utmost goal of air quality management is to protect the health of people and our environment. In this regard, international collaboration facilitated by the IJC is crucial.

The Geospatial Determinants of Health Outcomes Consortium (GeoDHOC) is an international, transdisciplinary research team aimed at understanding the health effects of air pollution in urban environments across an international airshed. Our team includes researchers from Wayne State University, the University of Windsor, the Henry Ford Health System, and Eastern Michigan University. Together, we have expertise in air sampling, geospatial modeling, land use regression, epidemiology, health information technology, comparative health outcome analysis, and respiratory disease state assessment in adults and children. GeoDHOC's long term goal is to create and apply geospatial models to investigate links between environmental stressors and health outcomes that can help to inform environmental and health policies aimed at improving the wellbeing of residents in urban environments.

In 2008 and 2009, the GeoDHOC deployed an array of 100 air samplers distributed throughout Detroit and Windsor to *simultaneously* measure air quality at a *high spatial density* in the Detroit-Windsor airshed. During a two-week period in each year, we measured nitrogen dioxide (NO_2), sulfur dioxide (SO_2), 26 volatile organic compounds (VOCs), 23 polycyclic aromatic hydrocarbons (PAHs), and particulate matter in three size fractions, $PM_{1.0}$, $PM_{1\text{-}2.5}$, and $PM_{2.5\text{-}10}$. Results from the 2008 sampling event are described by Miller et al. (*Atmos Env.*, 2010, 44:1162-1174). Analysis of our study results is continuing, however several of our initial findings are relevant to implementation of the Air Quality Agreement.

First, many of the analytes we examined exhibit neighborhood-scale spatial variability of contaminant concentrations. We hypothesize that variable exposure to airborne contaminants can be linked to variability in health outcomes, particularly for respiratory conditions. Routine monitoring carried out

by widely-spaced stationary monitoring stations is not likely to be able to characterize the degree of spatial variability we observed. Therefore, additional high density air sampling efforts supplemented by additional air monitoring stations are required to measure and define spatial variability of airborne pollutants in urbanized airsheds in a way that supports investigations of health effects in affected populations on both sides of the US-Canada border.

Second, analysis of fine particulate matter less than 1 micron in diameter ($PM_{1.0}$) indicates the presence of metals. These metals include Pb, Cu, Zn, Tl, Mo, Ba, and Fe, among others. Movement of suspended particulate matter should therefore be considered a potentially significant transport mechanism for metals, with important implications for cross border air pollution that warrant additional study.

We believe that cooperative international research ventures such as the GeoDHOC present one of the most effective means of addressing cross border air pollution issues and their attendant health effects. Collaborations such as this should be encouraged and supported by the International Joint Commission. In particular, IJC support in two areas would be most beneficial.

First, it is difficult and expensive for scientific teams sharing equipment and/or requiring uniform sampling methodologies to transport apparatus and samplers (e.g., air filters) across the US-Canada border. We were forced to employ customs brokers and to make costly and cumbersome logistical arrangements to ensure that exposed filters would not be subject to handling or delay during inspection that would have invalidated their usefulness in the study. A means to pre-screen and pre-approve small scientific shipments transported across the border for research purposes is needed and should be advocated by the IJC.

Second, funding mechanisms that support international research need to be developed. The vast majority of existing funding for scientific research of this type available through National Science Foundation, National Institutes of Health, Environment Canada, or Health Canada do not provide funds to support international colleagues. Fierce competition for research funds makes the probability of successfully applying for funds from Canadian and US research institutions in parallel remote at best. Cooperation between Canadian and US agencies to jointly fund international research studies should be encouraged by the IJC.

Thank you for the opportunity to provide our input.

Sincerely,

Helene J Krouse

Helene J. Krouse PhD, ANP-BC, CORLN, FAAN
Professor, College of Nursing
GeoDHOC Principle Investigator

cc: GeoDHOC Research Team Members:
Jason Booza, Wayne State University; booza@med.wayne.edu
Alice Grgicak-Mannion, University of Windsor; grgica3@uwindsor.ca
Rick Krajenta, Henry Ford Health System; rkrajen1@hfhs.org
Lois Lamerato, Henry Ford Health System; llamera1@hfhs.org
Dana Larkin, Henry Ford Health System; dlarkin1@hfhs.org
Lawrence Lemke, Wayne State University; ldlemke@wayne.edu
Delbert Raymond, Eastern Michigan University; marty.raymond@emich.edu
John Reiners Jr., Wayne State University; john.reiners.jr@wayne.edu
Iris Xiaohong Xu, University of Windsor; xxu@uwindsor.ca

DATE: September 9, 2011

FROM: Gordon Dalzell, Chairperson

Saint John Citizens Coalition for Clean Air

32 Dorothea Drive

Saint John, N.B.

E2J 3J1

TO: Secretary, Canadian Section

International Joint Commission

234 Laurier Avenue West, 22nd Floor

Ottawa, Ontario K1P 6K6

EMAIL TO: commission@ottawa.ijc.org

RE: COMMENTS ON CANADA - US AIR QUALITY AGREEMENT PROGRESS REPORT

Dear Secretary,

On behalf of the Saint John Citizens Coalition for Clean Air, an environmental public interest group concerned about local, regional and national air quality issues, I am pleased to offer commentary on the 2010 United States/Canada Air Quality Agreement Progress Report. Our environmental non-governmental organization is a registered member of the New Brunswick Environmental Network. Over the last ten years or so we have welcomed the opportunity to provide comment on the Biennial Air Quality Agreement Progress Reports.

In this region of North America, specifically Maritime Provinces including Southwestern New Brunswick, Bay of Fundy and our particular community of Saint John, NB trans-boundary air pollution from the US and Quebec/Winsor corridor (to a lesser degree), is the primary source of smog with its ground level ozone and particulate matter combination. During the recent presentation from the provincial Department of Environment on the 2009 NB Air Quality Monitoring Report. I was informed that about 70-80% of our ground level ozone, smog is trans-boundary air pollution from the US including primarily US Northeast and Midwest regions that drift up into the Maritime region travelling into the Bay of Fundy acting like a funnel or end of a tailpipe right into Southwestern NB, and the Saint John region. Depending on the winds and local sources ground level ozone blows in from Midwest US from all these dirty coal plants and other sources adding to the pollution the precursors in the formation of smog. It has to be stated that these latter sources impact Quebec/Windsor corridor especially the

Toronto regional airshed a lot more than what our impact is here in NB from those Northeast US sources.

As you know long range transport of various pollutants play a very significant role in the degradation of our airshed in this area from the May to October period. That is not to say that our own local regional sources are not contributors as well with some large sources including coal power plants in Nova Scotia and a concentration of heavy industry in Saint John, NB itself. Our air quality problems are still a problem made worse by weather conditions, such as low cloud cover, inversions, geographic layout. Here in New Brunswick our group have been actively intervening in advocating for reduced pollution levels from large industrial sources with I must admit with some limited success. For example SO2 levels from the largest petroleum refinery in Canada are well below the regulated limit for New Brunswick of 34 ppb to 17 ppb.

Having had this Canada/United States Air Quality Agreement signed in 1991 that focuses on trans-boundary air pollution between our two countries was certainly timely and welcomed. Having these Progress Reports every two years is a critically important component of the agreement to keep a continuing focus on the efforts. Allowing public input is so important in that those impacted by the pollution can offer comment and feedback on the continuing efforts.

One wonders if the two countries subject to this agreement with the status of a treaty, would have the political will to enter into such an agreement today. In 1991 thankfully both countries recognized the importance of entering into an agreement on the trans-boundary air pollution issues facing the two countries. Certainly from Canada's perspective the need for such an agreement was and still is timely considering the health and environmental impacts of millions of Canadians still trying to cope with the still too high levels of pollution in their communities. I am thinking specifically of the Toronto regional area where I have four young grandchildren living. Summer of 2011 was not a good air quality period for millions of people.

The number of air quality advisories, smog advisories and moderate readings on the AQHI risk tool causes me to conclude that despite progress made in the agreement, it still have not been enough to reduce the pollution levels from long range transport sources. This again is not to recognize that local sources of pollution such as coal and other dirty sources are a contributor to the degradation of airsheds in this region as well. The advantage of this Agreement is that it continues to provide important opportunities for collaboration between Canada and United States on the air pollution agenda. Millions of citizens in both countries are counting on these efforts to result in a reduction of those emissions to protect their health and save and restore our environment from the savages of air pollution.

At this point I would like to drill down into the content of this 2011 Progress Report.

RE: Section 1 Committments Acid Rain Annex

I was pleased to see the recognition that more needs to be done to restore the ecosystems to their pre acidified conditions. It is good to see the acknowledgement of the Acid Rain Strategy attributed to SO2 emission reductions undertaken by the four eastern provinces, NB, NS, Quebec and Ontario. Here in New Brunswick the biggest contributor to acid rain disposition in the region is the 1050 MW electrical generation plant Coleson Cove. It has been only working at 10-15% capacity last couple of years as it is cheaper to purchase the power from Quebec than operate this plant with oil. This reality along with the US/Ontario committed to shut their coal fire power plants should see continuing reductions in SO2, VO2 to the point that restoration of these ecosystems should occur. The next Progress Report should reflect additional reductions in the acid rain contributors.

This Progress Report and others in the past have failed to explain to the public the regulatory differences comparatively speaking between US with its federal Clean Air Act and authority of the EPA with its rule setting capacity on air pollution to Canada's and its provinces where the provinces have the constitutional authority to regulate, legislate at the provincial level. Yes Canada has Canadian Environmental Protection Act (CEPA) but it is not as effective as the US Clean Air Act in its authority and power to reduce pollution even at local state levels. Would suggest a section on explaining the differences between two countries. This would help the public understand the challenges and opportunities and limitations of both countries as they work towards reducing pollution contributing to Acid Rain and Ground Level Ozone.

On page eleven Preventing Air Quality Deterioration and Protection Visibility

It is important and expected that Federal and Provincial environmental assessment regulation requires that air quality be considered for all major new point sources or modifications to existing sources to ensure that Canadian objectives to protect the environment and human health are met.

Another regulatory tool you failed to acknowledge, that being those Certificates of Air Quality Approvals. Here in New Brunswick under the Authority of our Clean Air Act and Public Participation Regulation under that Act, we have seen impressive results with more stringent conditions in those Approvals. Two major point sources Coleson Cove Power Generating Station (1150 MW) and Irving Oil Refinery (largest in Canada) have had conditions with SO2, NO2 emission reduction requirements. These publically reviewed open processes in their air quality approvals, along with their own efforts have resulted in a gradual reduction of sulphur dioxide emissions in both cited sources.

This Progress Report mentioned the EIA process in considering the prevention of Air Quality but failed to acknowledge the equally important Air Quality Approval process especially here in NB when future levels of pollutants have been prevented or reduced in levels.

I would like to see some acknowledgement of the Clean Air Act of New Brunswick and its associated Public Participation Regulation. In my view certainly the most advanced Clean Air legislation here in Canada compared to other jurisdictions. Could you do an overview summary of these regulatory tools?

In the above section under preventing air quality deterioration there is mention to British Columbia's effort in Metro Vancouver with its AQMP. More examples especially New Brunswick's efforts and legislative framework need to be described. It will be a good role model for other provincial jurisdiction that have less effective legislation and regulations in respect to their air quality approval processes and outcomes.

Re Section Consultation and Notification concerning Significant Trans-boundary Air Pollution

There is ample examples of solid notification, exchange of information but the Consultation aspect appears to not be either occurring enough or just not documented in this 2010 Progress Report.

I see the notification information is available on the government's website of each country.

This is helpful especially having the various websites registered on line. Please continue to provide these various websites found throughout this Report.

There is the reference to Steel Algoma, Inc. and their informal consultation group formed in 1998. Is that the only one in respect to consultation groups? What about the ongoing consultation between Canada/US officials or the provinces and federal government.

There needs to be references and transparency in respect to those kinds of "consultations".

One point in regards to consultation is that there seems to be only government officials participating in the consulting. Even the US/Canada Air Quality members are all made up of various government departments and agencies.

I would like to see delegates from the environmental and public health interest groups.

How much "consultation" has gone on with the Advisory Committee with ENGO's Health groups at the community level. From what I see in this Progress Report not a lot. If there was need to acknowledge it with web references so the rest of us can see the nature and quality of the "consultation" part of this Agreement.

Notification is very important but agreement recognize consultation as well. Let's see more evidence of this at the community impact perspective.

Re Ozone Annex Overview

In respect to the Pollutant Emission Management Area (PEMA) which includes central and southern Ontario, southern Quebec.

This PEMA should include Maritime region especially one of the "hot spots" for ozone levels here in Southern New Brunswick.

If this area is not included please explain why not in your analysis report of these comments.

Some of the most achievements in reducing emissions are the new stringent NOx and VOC emission standards for vehicles including cars, vans, light duty trucks, off road vehicles, small engines and diesel engines as well as fuels. As so often seen its been the US who has taken the lead in these sulphur reduction levels in these fuels. Thank you to the USA EPA. Please continue these efforts with those thirty EPA rules pending. Presidential approvals for greenhouse gas emissions. With the political climate in US the Presidential may have a hard time moving forward on them. This is regrettable.

In respect to CO2 emissions, I realize this Canada/US Air Quality Agreement is not about climate change or these emissions contributing to it but there is a direct linkage to reducing the use of fossil fuels associated with this agreement and reduction of CO2 emissions. Might be suggested to have a section on how this agreement and its outcomes relates to the Climate Change CO2 emission agenda. The public could benefit from such clarification.

In the Progress Report I see US SPA new rules in US that coal fired plants have to install emission control technologies. Have these been announced yet?

In Ontario the current government had previously announced the phasing out of several coal plants. This certainly will see reductions in SO2, NOX emissions provided they are implemented. Ontario has passed a Clean Energy Act. My concern and those like minded citizens who want to see reduction in these pollution levels is a new Conservative government in Ontario could appeal the Clean Energy Act. That in my view would be a regressive action negatively impacting on the progress identified in this Canada/US Air Quality Agreement desired outcomes of pollution reduction.

On Page 17 good to see the Ontario government planning to phase out four coal fired units by the end of October 2010. Please update this report on whether this has been done or an extension made. This section does not mention Ontario's Clean Energy Act and its achievements to date in reducing SO2, NOX emissions. What are the implications if that should occur?

Re Measures for NOX and VOC Emissions to attain the CWS for Ozone

It is positive to see the various ... being taken. What is most impressive in this area is the Federal government (Canada) considering new national emission standards

for key industrial sectors. This report needed to explain that what is being proposed and expected to be approved is a prescriptive approach under regulation as opposed to voluntary guidelines and promises to reduce approach that so often has characterized the Canadian approach to reducing these emissions from large industrial sectors. As noted this is not the case for VOC emissions from manufacturing consumer, cleaning products, paints, etc.

In our view the regulatory prescriptive approach is more effective than these weak voluntary guideline approaches. We prefer the regulatory approach to see the results needed to reduce these smog, ground level ozone problems.

We would like to see the approach Quebec is considering with introducing regulatory approach to address vapour recovering initiatives including gasoline storage transfer depots and service stations. Congratulations to City of Montreal for enforcing regulatory provisions concerning gasoline vapour recovery in its territory. All provincial jurisdictions who do not have such regulations need to follow the City of Montreal's approach.

Re the VOC (CCME) Codes and Guidelines for Petroleum Storage such as above ground tanks et al

These were approved in 1995 or 1996 with a 10 year implementation period. The CCME with Environment Canada lead had a multi stakeholder consultation process a number of years ago as part of the new VOC Guidelines for such sources. I participated in that consultation but the CCME and or EC never moved forward to make new updated Codes and Guidelines. This report should have covered this failed effort. Please explain what happened.

This Progress Report should have covered this with an update on this initiative. What happened? My understanding is the Air Management Committee of Environment Canada did not move the consensus based new updated Codes and Guidelines to the next level of action within the Environment Canada.

This lack of action within CCME/EC should be reported on as part of this Progress Report under "Measures to Reduce VOC's" on page 18. Please provide a response as part of your response from the public comment section. Now when can we expect CCME/EC resume the updating of these VOC Codes of Practices, Guidelines for an important pollutant precursor to photo chemical smog formation?

One cannot but notice on page 21 Figure 11 the US NOX reduction for 2008 ozone season was 25,000 tonnes from 2007. That's not much of a reduction, in fact from 2004 to 2008 hardly much of a reduction. I expect the economic downturn impact of the last recession in US no doubt resulted in a more noticeable reduction such as noted in 2009. The Progress Report fails to address the economic downturn as a factor in selling these emissions falling. To what degree does this assumption have?

Page 26, Anticipated Additional Control Measures

In respect to US

There is reference to area specific reductions with EPA implementing NOX, VOX control measures. The measures include NO VOC reasonably available control technology that includes residential wood combustion. This is positive for those US areas but there is little to no reference in this report on what is being done in Canada.

It is my understanding that the CCME are looking at some regulations or guidelines for wood stoves for Canada.

This and future progress Reports must address the services problem of residential wood combustion stoves, fire places, etc. that are a significant source of particulate matter as well as VOC's. Please do more in future reports on this source of air pollution.

I just dread this winter with another two neighbours installing wood stoves and smoke pipes. For people with respiratory conditions these units have adverse health impacts. Wood boilers are even worse. While you are at it lets focus in on these outdoor stoves where people sit around their back yards and burn wood in this open ventilated wood units polluting the surrounding neighbourhood with wood smoke pollutants. Winter smog is the result as well.

Please include a section on residential wood combustion for the 2012 report.

Re: Biomass as an energy source for energy use

New Brunswick is going down this road with policy changes and encouragement to these industries and sources interested in its use.

The Progress Report does not appear to be focusing much if any attention to this another source of particulate matter. In fact, NB did away with its PM 10 monitors in favour of the PM 2.5 microns monitors. Certainly from a health perspective the PM 2.5 are more dangerous and life threatening to vulnerable populations.

Comment on New Actions on Acid Rain Ozone and Particulate Matter

This section needs to be updated to include 2011. This initiative under the CAMS framework could and I expect will reduce air pollutant emissions from major sources in Canada. There is reference to the CAMS framework but does not clarify that this framework will include regulations. The report does mention "The Government of Canada has proposed greenhouse gas regulation that will apply a stringent performance standard to new coal fired electricity generation units..."

As an air quality public interest group, we are very pleased to see this Canadian Air Management Strategy (CAMS) being developed by both the federal and provincial jurisdictions. The three key elements mentioned CAAQS (Canadian Ambient Air Quality

Standards); Air Zone Management/Regional Airsheds and the Base Level industrial emission requirements (BLIERS) are all excellent and fully supported.

New Brunswick back in 1997 had established these regional (within NB only) Air Resource Management area Committees know as ARMA's. These were highly successful. That committee produced an excellent report with recommendations. One was to reduce the SO2 standard from 34 ppb to 17 ppb in our Saint John airshed area. I would draw your attention to that publication to help you appreciate the challenges and problems our community faces with air quality problems much of which is trans-boundary. You could send to Department of Environment for NB attention Michelle Daigle for a copy.

Section 2: Related Air Quality Efforts

Very pleased to see a section like this one that focuses on Air Quality efforts of New England Governors and Eastern Canadian Premiers (NEG/ECP). These jurisdictions represent many millions people within their areas on both sides of the borders. Their efforts and committments need to be commended. They met all of their key action items that were set out in the Acid Rain Action Plan of 1998, including: the establishment of appropriate reduction targets: a regional 50% reduction of SO2 emissions by 2010 and a 20-30% reduction of NOX emissions by 2007.

So pleased to learn the Committee is also considering initiatives related to wood combustion and expanding public access to information on air quality. Both are timely, please include biomass burning now being promoted and used in some areas. May I suggest the mandatory passing of a Public Participation Regulation like NB has for the approval of Air Quality Approvals for large industrial sources (Class I's). Various provinces could pass similar regulations under their own Clean Air legislation.

This would be an excellent tool to get the public involved on an important aspect of air quality. Another is to put real time data on the continuous monitoring sites so we the public and check air quality monitors readings in our local communities. The NB Department of Environment has this capacity for their own internal use. They cannot afford to upgrade the online system to handle this real time access. This in unfortunate.

Section 3, Scientific and Technical Cooperation and Research

This section especially pages 44 to 47 with Figure 27, Figures 28, 29, 30 are informative for the typical citizen reading this Progress Report. Overall the report format, content and presentation is user friendly, easy to read and understand. I should point out that on page 49 I was shocked to see how little the federal government invested 12 million dollars for this four year period to establish new monitoring stations and upgrading and replacing monitoring equipment at existing sites. How much was spent by large industrial sources for monitoring stations and upgrade. Here in Saint John the Irving Oil Refinery own some of the stations in the Saint John located provincial system. They are linked to the Provincial monitors. This kind of involvement needs to be encouraged more.

I am concerned that here in Saint John the VOC data has to be sent to Ottawa EC to be analyzed. The readings are taken every seven days not daily. Need to be taken more frequently.

The Health Effects Section (page 53 to 60) is very important section. Over the years we have been recommending expanded data on this critically important section. Good to see a dedicated section outlining these health effects.

In respect to the reporting on the RESULTS of these various studies cited in the Progress Report, well that's the problem. In reading the first section on the efforts of Health Canada one is led to conclude that Health Canada may be just getting started on this research. Some examples why I draw that conclusion are statements in this first section such as; "Health Canada is conduction research", studies include investigations of the health risks associated with exposure to air pollutants emitted from industrial and transportation sources". I would suggest that Health Canada and Environment Canada (Health Protection Branch of the Pollution Prevention Directorate) are sitting on an abundance of research findings that if released would cause alarm in the general population. I recall health scientist, researchers reporting on research studies back in 1997 when these experts made presentations to the Air Resource Management Area Committee I referenced above. I recall these experts reporting on the Six Cities Study as well as some through Harvard. This Progress Report should expect Health Canada and Environment Canada to file these studies and include their findings in the 2010 Progress Report. The public have a right to the full disclosure of these government held studies.

Another example of this starting over again approach is the statement under Canadian Census Cohort Mortality and Air Pollution Study (CCC-MAPS) "In 2009, Health Canada launched a Canadian Census Cohort Study in collaboration with Statistics Canada. Long form census data on 2.7 million Canadians are currently being linked to vital status information up to 2007". Now I understand why the Government of Canada made the long form census voluntary. This change will result in less people on those 2.7 million list completing that long form census thus interferring with this important research. This study which was set up to examine the relationship between air pollution exposure and cancer incidence and cause specific mortality will be examined, will end up being flawed. The next Progress Report needs to report on the status of the (CCC-MAPS) Comments now for this Progress Report would be timely.

In conclusion, would have liked to have seen more reporting on the results of Health Canada and Environment Canada's known studies. These other studies were reported on, that is fine very helpful but over all this Progress Report could have done a better job on reporting on the results of their studies as opposed to the studies to be conducted. Another example to reinforce this point is found on page 54 'Health Canada is conducting an epidemiological study entitled "Human Health of Exposure to Air Pollutants in an Outdoor Setting". The known research is in air pollution kills thousands of Canadians yearly, they die prematurely from air quality impacts. This poor air quality the people in Toronto and other area in that Quebec/Windsor Corridor had to ensure

this summer resulted in all kinds of hospital admissions and deaths. Just need to do the stats on these two factors. How much more research and studies do we need before regulatory authorities take more aggressive action to reduce these air contaminants. Policy and drafters of legislation and regulations need to take more vigorous action. The mandatory rates are just too high. Too many people getting sick and dying at very high costs to society.

Re: Section on Canadian Health and Exposure Tools to Support Risk Management

The Canadian Air Quality Health Index

I would suggest the web page reference be included in the section that reports on AQHI. May I suggest some information in this report on how the Canadian public are accepting using this excellent public information tool that help them protect health on a daily basis. This is an excellent tool. Some information of its use and effectiveness needs to be in next report or in this one as well.

US Report on Health Effects of Ozone and PM

Paragraph 2 mentions "more than 1,700 new health and welfare studies related to ozone have been published in peer reviewed journals.

It would have been good idea to reference website where "the new research published in the staff paper" is located.

The US information on the health effects of Ozone and PM, NOx was excellent.

This serves as an excellent resource for those individual groups, policy makers and legislators who are involved in either protecting themselves or society. It is not always easy to find a summary like these included in the Progress Report. Thank you for including them, very helpful in advocacy efforts with big emitters or regulators etc.

Re Other Related Canadian and US Atmospheric Research

It appears the US is far ahead of Canada in respect to its monitoring with the Ammonia Monitoring Network. Canada needs to enhance its efforts and set up a similar network in those agricultural areas. The research needs to be enhanced as well.

Impacts of Climate Change on Air Quality

Considering Climate Change created with burning fossil fuels is the number one threat to our planet and an important public policy environmental issue facing Canadians, the Progress Report could have given this more coverage and attention.

This whole climate change subject in relation to the rest of the report on the air pollutants covered could have been put into this wider context. The relationship between burning fossil fuels creating these pollutants NOX, SO2, Ozone and the climate change impact needed to be covered in a broader perspective.

Re Conclusion

I agree considerable progress has been made to address trans-boundary ozone pollution in the eastern border regions of each country. That progress has not been enough as evidenced in the NB Air Quality Monitoring Report for 2009. Ground Level Ozone levels have hardly changed, still too high, even if at the set standard. Considering 70% of our SMOG, Ground Level ozone is trans-boundary (Northeast US, Quebec/Windsor Corridor must more has to be cone especially in US. Hopefully, those coal fired power plants in Midwest US will to either be closed or refurbished or converted to a cleaner fuel source.

Respectfully submitted,

Gordon Dalzell, Chairperson

Saint John Citizens Coalition for Clean Air