

Appendix III-b4. Responses to question #11 of the questionnaire

11. If you answered yes to #9, please give examples of NARSTO activities or products that you believe have supported air quality management decisions.
9. Has NARSTO contributed to the ability of Canada, the U.S. and Mexico to address air quality problems?

Responder Comment(s)
Number

Q # 5 The reactivity working group was useful.

Q # 7 Assessments on PM and ozone support Canada/US Air Quality Agreement. I believe that these assessments also led to constructive dialogue with Mexico.

Q # 8 Resolution of Canada -U.S. air quality issues requires that both Canada and U.S. governments - their scientists and their policy makers - recognize and understand the scope, nature, extent of shared air quality issues such as ozone and PM and agree on the credibility of the results of possible change scenarios. In Europe under the UN Economic Commission for Europe, the Long Range Transboundary Air Pollution (LRTAP) Convention has developed a process that is based in science and brings in policy through which to develop among the European nations a common view of cross-border air pollution so that it can be addressed and resolved. The NARSTO assessments on PM and ozone have provided a similar mechanism for Canada and the United States to that available through the UN ECE to European countries. These NARSTO assessments have been an important basis - although not the only basis - for discussion by the bilateral Canada-U.S. Air Quality Committee and for recommendation to the U.S. and Canadian governments for action on the common air quality issues of ozone and PM.

Q # 9 Again, the PM assessment did a good job. Though it did not raise issues that we had not already thought of, it provided an independent view of things and provided additional (independent, unbiased) input to our program development.

Q # 14 Mexico City management decisions. Houston management decisions.

Q # 15 Assesment for particles and ozone.

Q # 16 The science assessments. Their very existence indicated the strength of the scientific foundation to justify emission reduction reactions beyond the no regrets actions.

Q # 19 While I suspect some use has been made by decisionmakers of the information in the assessments, I really have not seen much evidence of this among the decisionmaking

forums I deal with, be it EPA rulemakings or state SIPs. I do not see this as a crucial driver for NARSTO work.

- Q # 22 The Reactivity workgroup reports, the Tropospheric Ozone Assessment, and the PM Assessment all had direct and or indirect impacts on EPA's NAAQS reviews and Implementation rule making.
- Q # 23 Ontario standard setting, regulatory agencies and intervention and petition teams, have consistently referred to NARSTO products as either supporting science or as fiduciary reference points in decision making exercises.
- Q # 24 The NARSTO assessments have helped guide the development of assessment approaches in EPA which in turn have an as yet to be determined effect on actual decision making.
- Q # 25 NARSTO's work on modeling air quality in the northeast was a valuable platform for inter-agency and stakeholder participation. NARSTO's support for the weight of evidence approach to attainment demonstrations helped modify a very important EPA policy. NARSTO's emissions inventory assessment is a useful reference for agencies.
- Q # 26 Better scientific programs at academic institutions supported by institutions such as the National Institute of Ecology and field campaigns (MIRAGE).
- Q # 28 NOx and SO2 Management strategies in Canada.
- Q # 29 The assessments and the policy makers guides.
- Q # 30 Cited in CAIR final rule, for example.
- Q # 31 Assessments, emission inventory work, networking in general
- Q # 33 I used the NARSTO ozone and PM assessments as part of our argument in favor of Clear Skies legislation and the CAIR multipollutant program. The latter may be in limbo now, but top EPA management and others continue to support the concept. To be sure, NARSTO work was only a part of the support, but it certainly helped to build a consensus for action among many parties, including the power sector.
- Q # 35 All the assessment reports have supported air quality management decisions.
- Q # 36 The assessment documents (at least I hope so)
- Q # 37 Assessments in emissions inventories and PM.
- Q # 38 Information in assessments have been referenced in US Criteria documents
- Q # 45 I suspect that NARSTO activities have been quite supportive of decisions that stemmed from the OTAG exercise. Putting on a cynic's hat, I have not seen many 'real' significant

AQ management decisions in (just) Canada in the past decade or more. Even the S-in-Fuel decisions were made with knowledge that similar decisions would be made in the US. Improving motor vehicle emission controls have largely been Canada piggy-backing on US and international standards. The CWS have led to research activity, but may be dropped before they come into effect. Canada has yet to do anything major on point source NO_x emissions to match the US. Broadly speaking, thus, Canada's AQ management decisions are not made in a vacuum. Thus, as the science that NARSTO assesses and/or supports serves as the basis for US decisions, this also benefits Canada. Broadly speaking, it is also probably asking too much to expect to connect directly, a NARSTO activity/product to a specific AQ management decision. Such decisions use weight-of-evidence coming from all sources, ideally. NARSTO and the NA scientific consensus that it helps build is but one source. I believe that as long as NARSTO is properly resourced and respected, it can be a very valuable source.

Q # 46 Products of the Reactivity Research Working Group provided the basis for EPA's guidance to states on using VOC reactivity criteria in rulemaking.

Q # 47 same as above

Q # 50 NARSTO-Northeast supported air quality management decisions about balancing control of local and regional scales. The findings from the Texas Air Quality Study in Houston overturned prior understandings of causative emissions and led to crucial changes in management decisions. These findings could not have been accomplished without bringing together the resources, talents, brains and skills from Texas academia, State, DOE labs and NOAA labs among others. Participation of NOAA in several regional field studies with measurements of upper air chemistry and physics. Participation of DOE labs in several regional field studies with measurements of upper air chemistry and atmospheric modeling.

Q # 52 Reactivity Working Group

Q # 53 As a follow up to the recommendations provided in the emissions inventory assessment, Environment Canada has undertaken a number of studies and emission measurements to improve the accuracy of the emission estimates for different sources. The improved emission estimates provide better information for the air quality models used in Canada, which are used for the development of air quality management strategies.

Q # 54 NYSERDA is not a regulatory agency but the NARSTO PM assessment that showed a substantial amount of organic PM with unidentified species and sources led to NYSERDA supporting a Carbon PM Assessment for New York and the Region that was performed by NESCAUM. The finding that residential wood combustion is a major primary source of PM in NY was part of the justification to launch what is probably the largest biomass heating research program in the U.S. The research portfolio includes a project with the U.S. EPA to measure emissions from outdoor wood boilers, a residential and small commercial heating technology which is growing in popularity in northern states and is a very large source of PM. This source is currently missing from the

National Emissions Inventory. States in the Northeast need emissions and energy performance data for this source for air planning purposes and energy planning and development as well.