



FERTILIZER CANADA

FERTILISANTS CANADA

907 – 350 Sparks, Ottawa ON K1R 7S8

T (613) 230-2600 | F (613) 230-5142

info@fertilizercanada.ca

fertilizercanada.ca | fertilisantscanada.ca

November 22, 2021

Alberta Environment and Parks

Via email: airquality.comments@gov.ab.ca

Re: Alberta Ambient Air Quality Objectives and Guidelines – Nitrogen Dioxide

Thank you for this opportunity to submit comments on Alberta's proposed ambient air quality objectives (AAQO) for nitrogen dioxide (NO₂).

Fertilizer Canada represents manufacturers, wholesalers, and retail distributors of nitrogen, phosphate, potash, and sulphur fertilizers – the backbone of Canada's agri-food economy. Fertilizer is responsible for half of the world's current food production, and our industry is a major contributor to this global supply, supporting food security in Canada and around the world. We also contribute approximately \$24 billion annually to Canada's economic activity, and our industry has facilities across Canada supporting the employment of over 76,000 individuals throughout the supply chain. Our industry is one of the most energy-intensive, trade-exposed (EITE) industries in Canada with world-class, sustainable operations resulting from early action to reduce its environmental footprint. The industry is committed to maintaining air quality and protecting the health of Canadians.

Alberta is home to one of the largest concentrations of nitrogen production facilities in North America, consisting of seven facilities that use and upgrade natural gas to produce fertilizers and their upgrade products to feed Canadians and the world. Nitrogen manufacturing is a significant contributor to Alberta's manufacturing and value-added economy. In Alberta, fertilizer manufacturing generates a direct economic benefit of \$2.3 billion, adding \$800 million to GDP as well as almost 3,000 jobs. Our nitrogen production facilities upgrade Canadian natural gas, the most efficient and lowest carbon dioxide (CO₂) emission feedstock and fuel source, into nitrogen fertilizers which keep agricultural soils productive.

Our members' facilities in Alberta would be directly impacted by the proposed changes to the AAQO for NO₂. After reviewing the draft changes, we have outlined some remaining questions and concerns below about the potential impacts to our industry.

Based on Health Canada's 2016 *Human Health Risk Assessment for Ambient Nitrogen Dioxide*, our understanding is that non-industry sources, primarily motor vehicles and in particular diesel vehicles, are the primary source of ambient NO₂. Fertilizer Canada and our member companies understand that industry has a part to play in minimizing emissions of air pollutants, protecting the health of Canadians, and mitigating the impact of industrial NO₂ emissions. However, we do not believe that the proposed changes to the AAQOs will have the desired impact because the potential for NO₂ emission reduction at industrial



FERTILIZER CANADA

FERTILISANTS CANADA

907 – 350 Sparks, Ottawa ON K1R 7S8

T (613) 230-2600 | F (613) 230-5142

info@fertilizercanada.ca

fertilizercanada.ca | fertilisantscanada.ca

facilities is low given that the key sources of NO₂ emissions are vehicles. Because of this, we believe that the proposed changes would increase the regulatory burden on our industry with little or no benefit. Indeed, based on data from the Government of Alberta's 2017 *North Saskatchewan Region Air Zone Canadian Ambient Air Quality Standards Response Government of Alberta Action Plan*, the fertilizer sector does not contribute significantly to NO_x emissions in the region, despite the North Saskatchewan Region being home to three of Alberta's seven fertilizer manufacturing facilities (see Figure 2: Percent of Total Emissions by Sector for the North Saskatchewan Region Air Zone).¹ Further, our members' facilities tend to be located on the outskirts of communities and some distance from residential areas, making emissions from the fertilizer sector even less likely to have human health impacts as opposed to vehicles.

Fertilizer Canada encourages the Government of Alberta to reconsider if and how the proposed changes would achieve their intended outcome. Additionally, if there is any additional data that can be shared on sources and levels of NO₂ emissions in Alberta, we would welcome an opportunity to review this information.

Thank you again for this opportunity to provide feedback on the proposed ambient air quality objectives for nitrogen dioxide. We stand ready to work with the Government of Alberta as new air quality guidelines are developed, and we would be pleased to schedule a virtual meeting to discuss any of the comments outlined above if needed.

Sincerely,

McKenzie Smith
Director, Stewardship & Regulatory Affairs
Fertilizer Canada

CC: Jody Rosenberger, Head, NPRI Development

¹ "North Saskatchewan Region Air Zone Canadian Ambient Air Quality Standards Response Government of Alberta Action Plan", Government of Alberta, September 2017, <https://open.alberta.ca/dataset/833bd7f4-197a-4541-9dc7-9528d820e05d/resource/8f3c3b9c-f628-44a7-b022-c0ca7f21a194/download/northsaskatchewancaaqs-actionplan-sep2017.pdf>.