Summary of Public Comments received on the Challenge substance Vanadium Pentoxide (CAS RN 1314-62-1) Proposed Risk Management Approach for Batch 9

Comments on the proposed risk management approach for vanadium pentoxide to be addressed as part of the Chemicals Management Plan Challenge were provided by Canadian Environmental Law Association, Inuit Tapiriit Kanatami, Canadian Steel Producers Association, Canadian Petroleum Products Institute, Vanadium Producers and Reclaimers Association, Canadian Electricity Association, and Dow Chemical Canada. A summary of comments and responses is included below, organized by topic:

- Alternatives
- Environmental Emergencies
- Risk Management
- Vulnerable Populations

Topics	Summarized / Rolled-up Comment	Summarized / Rolled- up answer
Alternatives	A list of substitutes for the use of vanadium pentoxide should be a mandatory part of all risk management strategies. In addition to other risk assessment tools, the government and multiple stakeholders should assess alternatives to identify safe substitutes	Risk management approaches consider substitutes/alternatives. For the risk management of substances, alternatives are considered in terms of available, sufficient and relevant information pertaining to the economic, social, and environmental implications for Canada.
	The government should support alternative energy production, excluding nuclear power, in the management strategy for air contaminants including vanadium pentoxide. Some alternatives such as heavy fuel upgrading or using low emission fuels could create more GHG emissions and waste from increased processing of crude oil.	The Government of Canada recognizes that renewable sources of energy, such as hydro, wind, solar, and marine, make an important contribution to our Canadian energy mix. The *Reduction of Carbon Dioxide Emissions from Coal-Fired Generation of Electricity Regulations* (published in *The Canada Gazette* on September 12, 2012) will reduce emissions from new coal power plants; phase out inefficient coal power plants; and promote low or no

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		emissions power generation.
	The Federal and other governments should invest in non-toxic energy production in addition to a phase-out of coal power plants.	Canada generates most of its power from non-emitting sources. The *Reduction of Carbon Dioxide Emissions from Coal-Fired Generation of Electricity Regulations* (published in *The Canada Gazette* on September 12, 2012) will reduce emissions from new coal power plants; phase out inefficient coal power plants; and promote low or no emissions power generation. Federal, Provincial, and Territorial governments are finalizing a new Air Quality Management System (AQMS) to manage air pollution in Canada, including the emissions from the electricity sector.
Environmental Emergencies	Environmental Emergency plans should be in place for any amount of vanadium pentoxide that is used or released. The proximity of nearby communities should be considered when deciding what levels of the substance should trigger the requirements for an environmental emergency plan.	Environmental Emergency plans are triggered when substances listed in the Environmental Emergency Regulations are present in amounts that exceed threshold values that are scientifically determined to pose an environmental emergency hazard. As part of the regulatory amendment process, a consultation process will be conducted with industry stakeholders and other interested parties to determine if, and under which conditions, this substance should be added to the *Environmental Emergency Regulations*.
	Although the Risk Management Approach proposes to add vanadium pentoxide to existing *Environmental Emergency Regulations*, there should be further assessment to determine if,	As part of the regulatory amendment process, a consultation process will be conducted with industry stakeholders and other interested parties to determine if, and under which conditions, this substance should be

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	vanadium pentoxide is present or used in Canadian facilities under conditions that meet these criteria.	added to the *Environmental Emergency Regulations.*
Risk management	All stakeholders should be invited to engage in defining health impacts and developing risk management tools. The government should also tell the public how much work or information is required to identify health impacts from certain industry sectors.	The Government of Canada is committed to open and transparent processes to assess risks (including health impacts) and to develop risk management tools. Stakeholders from the public, industry and non-governmental organizations were consulted and invited to submit public comments at the assessment and risk management stage, and there will be additional opportunities to input to SNAc provisions and regulatory instruments.
	More stringent measures for the management of vanadium pentoxide are required. Specifically: the phase out of anthropogenic sources with a goal of virtual elimination; federal regulations for reducing or eliminating emissions from the electricity generating sector; and the phase out of coal power plants.	Federal, Provincial, and Territorial governments are finalizing a new Air Quality Management System (AQMS) to manage air pollution in Canada, including the emissions from the electricity sector. In addition, the Government of Canada has published the *Reduction of Carbon Dioxide Emissions from Coal-Fired Generation of Electricity Regulations* which will reduce emissions from new coal power plants, phase out inefficient coal power plants, and foster a transition towards lower or non-emitting types of generation such as high-efficiency natural gas and renewable electricity. Vanadium pentoxide does not meet the virtual elimination criteria set out in subsection 77(4) of CEPA 1999. Virtual elimination is not being proposed for this substance.

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	A phase-out to eliminate vanadium pentoxide releases from petroleum refineries and operations is required. For new uses of vanadium pentoxide, the SNAc provisions should be replaced with a phase-out of its release.	A new Air Quality Management System (AQMS) is being finalized that will manage air pollution including particulate matter (which can contain vanadium pentoxide) emissions from petroleum refineries in Canada. These emissions have already been significantly reduced by improvements in process efficiencies such as fuel switching and reductions in fuel consumption. The SNAc provisions are proposed to require the notification of the federal government regarding any potential changes in the use pattern for vanadium pentoxide so that the potential for exposure to the Canadian population does not substantially increase.
	The 2010 guideline for PM and ozone are inadequate for reducing vanadium oxide emissions and more effective regulatory actions are required. The effectiveness of Canada Wide Standards (CWS) for air particulates should be assessed, and government monitoring programs should include all substances covered under the CWS.	Total vanadium and other air pollutants are monitored through the National Air Pollution Surveillance (NAPS) program and the Canadian Air Precipitation Monitoring Network (CAPMoN). Canada Wide Standards and monitoring programs are currently under review to assess their effectiveness. When the new AQMS is finalized, it is expected to include new ambient air quality standards that will guide the management of particulate matter emissions, which contain vanadium pentoxide.
	The National Pollutant Release Inventory (NPRI) does not include the CAS RN for vanadium pentoxide.	Vanadium pentoxide falls under vanadium and its compounds which is listed in the NPRI.
	In the Significant New Activity provisions for vanadium pentoxide, existing uses should be allowed and there should be exemptions for	All attempts are made to recognize potential and current uses of vanadium pentoxide, and they are excluded in the SNAc Notice of Intent (NOI) where no issues are

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	applications when no issues are identified in the Risk Assessment. The Government should also consider potential uses not disclosed by these thresholds to ensure that business can remain in compliance and not be interrupted. For example, catalyst management and fuel combustion should not be considered as Significant New Activities for vanadium pentoxide.	identified in s.71 surveys, voluntary information submissions or in the Risk Assessment. Stakeholders have the opportunity to confirm that exclusions identified in the SNAc NOI are accurate during the 60-day public comment period that accompanies each NOI.
	Exemptions for R&D should be considered in the SNAc for vanadium oxide.	Exemptions from SNAc provisions for research and development purposes are considered for each substance. Decisions on exemptions included for research and development are primarily based on risks associated with changes to use patterns. While the NOI for Vanadium Pentoxide does not include a specific exemption for R&D activities, the basic exemption for activities under 100 kg does apply. The NOI is subject to a 60-day comment period in which stakeholders may express their views on this approach.
	The SNAc provisions should include warnings and enough time for organizations to attain compliance.	There is a significant amount of time between the determination that a substance requires risk management and the coming into force of the SNAc provisions. The likelihood of a SNAc is described early in the process, within the Proposed Risk Management Scope document. This process includes formal 60-day comment periods on both the Risk Management Scope and Approach documents as well as the SNAc NOI. In addition, compliance issues put forward by industry during the consultations on vanadium pentoxide were taken into account by the Government in setting the

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		coming into force date for the proposed SNAc provisions.
	A sustainable development objective should be applied when developing risk management tools including SNAcs, so that unacceptable risks are considered in terms of economics, impacts on industry, social expectations and improved environmental and human health outcomes.	Sustainable development is one of the guiding principles of CEPA 1999. The Government of Canada recognizes economic, social, and technical considerations in the context of protecting the environment and human health from associated risks when developing risk management tools for substances that meet CEPA 1999 section 64 criteria.
	The SNAc provisions have replaced "the future use notification tool" that was identified in the scope document from March 2010. An explanation for this change and the difference between these two tools is requested.	Early in the Challenge, it was recognized that there was a need for a future use notification tool. It was determined that the SNAc provisions of the CEPA 1999 could meet this risk management need. Thus, the "future use notification tool" wording was replaced with Significant New Activity provisions wording, eliminating the need to develop another regulatory initiative.
	Confirmation that the proposed risk management approach is limited to the discrete compound vanadium pentoxide is requested.	The Significant New Activity Provisions under CEPA 1999 will be limited to vanadium pentoxide. Reductions of vanadium pentoxide are also expected as a result of co-benefits of existing and proposed programs to reduce particulate emissions from combustion of certain fossil fuels.
Vulnerable Populations	Submissions of data and information on health impacts for vulnerable populations exposed to vanadium pentoxide should be mandatory under the CEPA 1999 Section 71(1)(c). Management proposals should be protective of vulnerable populations including pregnant women, those living	The screening assessments are based on consideration of the available data and include a number of various conservative exposure scenarios that account for both the general and vulnerable populations in Canada.

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	in poverty; children; aboriginal and northern communities; people with chemical sensitivities; and those working in or living in the vicinity of facilities that discharge vanadium pentoxide to the environment.	