



Value Creation Inc.



Value Chain Solutions Inc.

May 10, 2021

**Impact Assessment Agency of Canada**

**Attention:** Wajeeha Siddiqui, Project Analyst, Prairie and Northern Region

Copy: Susan Teige, Manager, Prairie and Northern Region

**Re: Value Chain Solutions – Heartland Complex (“ VCS-H ”) Expansion Project, VCS’  
Comments to the Draft Tailored Impact Statement Guidelines**

Via Email

Dear Ms. Siddiqui,

On April 16, 2021, the Impact Assessment Agency of Canada (the Agency) issued the Draft Tailored Impact Statement Guidelines (TISG) for the VCS-H Expansion Project followed by the public comment period till May 17, 2021.

The Agency has held teleconferences to discuss with VCS on the draft TISG and Draft Indigenous Engagement and Partnership Plan (IEPP) and provided clarifications. We appreciate the support in the planning stage of the Impact Assessment.

In general, TISG has many repetitive requirements as those in the Provincial Final Terms of Reference. As the permitting plan listed, Federal review will issue permits under *the Fisheries Act, the Species at Risk Act, and the Canadian Navigable Waters Act*, it is strongly recommended TISG will focus on the permitting plan areas among other areas such as GHG/climate change, gender-based analysis along with Indigenous groups Engagement to avoid duplicated review effort expected from the Alberta Energy Regulator.

VCS has attached the following comments to the Draft TISG as well as the Draft IEPP.

Specifically,

1) Regards to *Section 1.1 Factors to be considered in the impact assessment*

*“The Guidelines correspond to factors listed in subsection 22(1) of the Act and prescribe that the impact assessment of a designated project must take into account:*

*(a) the changes to the environment or to health, social or economic conditions and the positive and negative consequences of these changes that are likely to be caused by the carrying out of the designated project, including:*

*(i) the effects of malfunctions or accidents that may occur in connection with the designated project;*

*(ii) any cumulative effects that are likely to result from the designated project in combination with other physical activities that have been or will be carried out; and*



(iii) *the result of any interaction between those effects;*"

As there are unlimited combinations regarding to terms (iii), it will be better defined to limit the malfunction or accidents to those as defined in Section 13.1 in the TISG, Potential Accidents or Malfunctions.

2) Regards to *Section 1.1 Factors to be considered in the impact assessment*  
“(s) *the intersection of sex and gender with other identity factors;*”

Limit the gender-based analysis to those sections that are necessary (those as listed in the TISG in Section 3.5 Workforce requirements, Section 4.4 Alternative means of carrying out the Project, Section 6.2 Record of engagement (with Indigenous groups), Section 10 Social conditions and Section 11 Economic conditions, instead of an overarching factor to be considered throughout the Impact Statement.

3) Regards to Sections 6 and 12 on Indigenous people involvements and IEPP:

The TISG does not show differentiation on consultation requirements for Project planned on private lands zoned for heavy industrial development in a Designated Industrial Heartland versus Project on crown lands with much larger footprint and land disturbance.

- IAAC to provide different tiers for consultation based on proximity and potential impact regards to the IEPP draft and this document, as it is not possible to have the same potential impact to the first list of groups in the Draft IEPP (30+ groups); and
- the three bodies- Proponent, Indigenous groups and IAAC to work together to implement meaningful, cost and time effective consultation process

4) Regards to Section 8.4.1.1 Baseline conditions for Atmospheric environment  
“*provide the results of a baseline survey of ambient air quality, in particular near key receptors by identifying and quantifying emission sources for the following contaminants:*

- *total suspended particulates;*
- *fine particulates smaller than 2.5 microns (PM2.5);*
- *respirable particulates of less than 10 microns (PM10);*
- *carbon monoxide (CO);*
- *Ozone;*
- *sulphur oxides (SOx);*
- *nitrogen oxides (NOx);*
- *volatile organic compounds (VOCs);*
- *hydrogen sulphide (H2S) and other reduced sulphur compounds;*
- *polycyclic aromatic compounds (PACs), including polycyclic aromatic hydrocarbons (PAHs), alkylated PAHs, PAH transformation products, including nitro and oxy-PAHs, and dibenzothiophenes (DBTs);*



- *metals, including aluminum, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, manganese, mercury, molybdenum, nickel, selenium, silver, strontium, thallium, tin, vanadium and zinc,*
- *ammonia; and*
- *any other toxic air pollutants (mobile, stationary and fugitive sources);”*

For the Fort Air Partnership (FAP) monitoring station in the Project area, 18 contaminants are continuously monitored including BTEX (benzene, toluene, ethylbenzene and xylene) among other contaminants.<sup>1</sup> Baseline data on total suspended particulates, other reduced sulphur compounds, polycyclic aromatic compounds, metals, dust level and any other toxic air pollutants are not generally continuously monitored in the proximity to the Project area so therefore less representative.

Our project does not emit metals as listed to the air, therefore the baseline air concentration of these metals are not relevant, and nor is it meaningful to assess the change and impact by the project. It is believed metals should not be included in the assessment given that the Project will be comprised of gas-fired emission sources only. Operators may handle solid catalysts at upgraders during catalyst loading and unloading at most every 3 years, resulting in airborne dust and metals being generated. However, emissions due to solid catalyst handling should be considered as a non-routine and temporary emission source, not a continuous one which would have a much greater impact on air quality. Moreover, emissions from solid catalyst handling would likely result in near-field impacts within the facility’s operational boundaries, and thus any air quality issue arising from the handling of solid catalysts should be dealt with as an occupational safety and health issue, rather than a public one.

Similarly, we do not believe that particle deposition should be assessed. All emissions from combustion sources are in the PM2.5 size range, or smaller, and thus do not settle near the facility. It is assumed that deposition of fugitive dust from yard or parking areas will be managed using appropriate control such as sweeping or watering.

#### 5) Regards to Section 8.4.1.2 Changes to the atmospheric environment

*“The Impact Statement must:*

*provide a detailed description and a quantitative assessment of all emission sources of air pollutants from the Project listed under 8.4.1.1 Baseline conditions, including all point sources, area sources, and mobile and road sources and identify if these emissions differ from components or activities associated with the existing Value Chain Solutions – Heartland Project 1;”*

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<sup>1</sup> <https://www.fortair.org/wp-content/uploads/2020/10/What-We-Monitor-1.pdf>



VCS proposes to provide quantitative assessment of the below:

- criteria contaminants including NOX, SO<sub>2</sub>, CO, PM<sub>2.5</sub>;
  - specific VOCs such as BTEX to be determined and specific PAHs;
  - odourous chemicals such as reduced sulphur compounds;
  - acid deposition (PAI), depending on the magnitude of acid forming emissions;
  - nitrogen deposition and NO<sub>2</sub> fumigation as it may affect local agriculture; and
  - ozone.
- 6) Regards to Section 8.4.1.2 Changes to the atmospheric environment on Secondary organic compounds
- *“quantify the emissions of gas-phase precursor compounds of secondary organic aerosols (SOA) for each relevant source;*
  - *identify the individual chemical compounds considered as SOA precursor emissions (VOCs, IVOCs and SVOCs). In addition, group total organic gas-phase emissions on the basis of volatility for each source, to use in the estimation of SOAs;”*

It seems premature to put SOA, Intermediate VOC and Semi-VOC quantification requirements in the TISG as most effects of these are still in the research study stage and not well-understood.

7) Regards to Section 9.2 Effects to human health

*“The Impact Statement must:*

- *present data separately for each Indigenous group, and should be broken down by community;*
- *describe any potential project-related effects on the community health profile (e.g. changes in existing community activities) and the availability of health-related resources;”*

With human health risk assessment carried out based on distance to the Project emission source, it is onerous and repetitive to present data for each Indigenous groups (with broken down by communities) with various traditional activities planned or performed in different distance to the Project area. It is not to the interests to the Indigenous groups to made public of their traditional land uses or activities.

Enclosure