



Permit No: 60-010-04

AIR EMISSIONS PERMIT

Issued Pursuant to the *Environment Act* and
the *Air Emissions Regulations*

Permittee: Yukon Energy Corporation

Mailing Address: #2 Miles Canyon Road, Box 5920, Whitehorse, YT Y1A6S7

Site Location: #2 Miles Canyon Road, Box 5920, Whitehorse, YT Y1A6S7
GPS: 60.698441, -135.045368

Authorized Representative: Travis Ritchie
Phone: (867) 393-5350
Email: travis.ritchie@yec.yk.ca

Effective Date: January 1, 2025
Expiry Date: December 31, 2034

Scope of Authorization: In accordance with your application, you are authorized to operate electricity generating equipment at the above site location (the "site"), **to a maximum production capacity of 42.0 megawatts** as set out in the terms and conditions of this permit.

Dated this 19th day of December, 2024

Bryna Cable
Director, Environmental Protection and Assessment Branch
Department of Environment, Government of Yukon

PART 1: DEFINITIONS

1. In this permit,

“Act” means the *Environment Act*, R.S.Y. 2002, c. 76, as updated from time to time;

“approved plan” means a plan that is submitted by the permittee and approved by an environmental protection analyst under this permit and includes any terms and conditions specified by the environmental protection analyst in the approval;

“associated personnel” means all employees, contractors and volunteers involved in the permitted activities;

“Branch” means the following sections within the Environmental Protection and Assessment Branch, Department of Environment, Government of Yukon: Standards & Approvals; the Environmental Compliance & Inspections Section; and/or the Directorate;

“emission factor” means the mass emission of a pollutant per unit of energy produced in either grams per kilowatt-hour (g/kWh) or kilograms per megawatt-hour (kg/MWh);

“emission rate” means the average rate in grams per second (g/s) or kilograms/hour (kg/h) at which a pollutant is emitted from a source, determined either:

- i) as estimated based on emission factors derived from published literature regarding sources of similar type and age (estimated emission rates); or
- ii) as derived from measured data obtained from manual stack testing carried out by the permittee (measured emission rates);

“environmental protection analyst” means an employee of the Branch so designated by the Minister of Environment under the Act;

“environmental protection officer” means an employee of the Government of Yukon so designated by the Minister of Environment under the Act;

“nameplate capacity” means the maximum amount of energy that can be produced, as indicated on the generator’s nameplate;

“production capacity” means the capacity specified in the Yukon Environmental and Socio-Economic Assessment Board decision document for project 2024-0103;

“Regulations” means the *Air Emissions Regulations*, O.I.C. 1998/207;

“source” means a fuel-fired electricity generator which has a maximum nameplate capacity equal to or more than 1.0 megawatts;

“total annual emissions” means the emissions derived by multiplying emission factors or measured emission rates for each source by the previous three-year average total energy production for that source; and

“YESAA” means Yukon Environment and Socio-economic Assessment Act.

2. Any term not defined in this permit that is defined in the Act or the Regulations has the same meaning as in the Act or the Regulations.

PART 2: GENERAL

1. No condition of this permit limits the applicability of any other law or bylaw.
2. The permittee shall ensure that all activities authorized by this permit occur on property that the permittee has the right to enter upon and use for that purpose.
3. The permittee shall ensure that all associated personnel:
 - a. have access to a copy of this permit;
 - b. are knowledgeable of the terms and conditions of this permit; and
 - c. receive the appropriate training for the purposes of carrying out the requirements of this permit.
4. The permittee shall provide notice in writing to an environmental protection analyst prior to any significant change of circumstances at the site, including without limitation:
 - a. discontinuation of any regulated activity at the site;
 - b. change of ownership of the site or any of the sources; and,
 - c. change to the mailing address or phone number of the permittee.
5. The permittee shall obtain approval from an environmental protection analyst prior to:
 - a. any addition, modification, removal or replacement of any equipment or components related to the release, abatement, control or treatment of air emissions; or,
 - b. any movement of the source(s) offsite.
6. Where conflicts exist between this permit, the permit application or any plans, this permit shall prevail.

7. If an inspection reveals that the site or source(s) is in any way not in compliance with this permit, the permittee shall repair the damage or take other actions as required to bring the site or source(s) into compliance.
8. For clarity, all obligations of the permittee under this permit survive the expiry date to the extent that each is not superseded by one or more conditions in a subsequent permit.

PART 3: OPERATION AND MAINTENANCE

1. The permittee is authorized to operate generators at the site up to a maximum production capacity of 42.0 megawatts.
2. In accordance with the manufacturer's recommendations and best management practices, the permittee shall inspect, maintain and operate the sources, any stand-alone air pollution control equipment, and testing and monitoring equipment as necessary to provide optimum control of air contaminant emissions during all operating periods.
3. Except for maintenance or test purposes, the permittee shall run the sources at each site in order of highest possible efficiency under the circumstances.
4. The permittee shall ensure that the fuel used by the source(s) conforms to the most recent Canadian federal *Sulphur in Diesel Fuel Regulations* for off-road applications.

PART 4: RELEASE OF CONTAMINANTS

1. The visible emissions from any source shall not exceed an opacity of 20% as measured by a qualified professional.
2. In the event that the opacity of emissions from any source exceeds the criterion established in Part 4.1 of this permit, the permittee shall take measures to reduce the opacity of the emissions below that criterion as directed by an environmental protection officer.
3. The permittee shall ensure that particulates collected using emission control equipment are contained so that there is no release of contaminants to the atmosphere or into an open body of water.

4. If ambient air quality monitoring data within the area of influence of the permittee's facility indicates that one or more of Yukon's Ambient Air Quality Standards is being exceeded, and the environmental protection officer is satisfied that the permittee's facility is the cause or a significant contributor to the prevailing ambient air quality condition, the permittee shall undertake such mitigation measures as may be specified by the environmental protection officer to improve the ambient air quality condition.

PART 5: MONITORING EMISSIONS

1. The permittee shall submit to an environmental protection analyst for approval, by June 30 2025, an environmental monitoring plan with three sections identifying:
 - a. An ambient air quality monitoring plan for nitrogen dioxide subject to term 1 of YESAA decision document 2024-0103;
 - b. Noise mitigation measures, including terms 2 and 3 outlined in YESAA decision document 2024-0103; and,
 - c. A complaint management system, as outlined in term 4 of YESAA decision document 2024-0103.
2. The permittee shall carry out any commitments in the approved environmental monitoring plan on a schedule that is approved by the analyst.
3. The permittee shall quantify, through monitoring or calculations based on emissions data and published emissions factors, the levels of volatile organic compounds (VOCs) released in normal operations annually from the liquefied natural gas operations at the site.
4. The permittee shall quantify the fugitive emissions of methane (CH₄) from the point of unloading of the liquefied natural gas into the storage tank to and including any emissions from the generator not emanating from the stack at the site.

PART 6: REPORTING

1. The permittee shall submit to an environmental protection analyst a report which identifies:
 - a. the total annual operating hours for all sources at the site;
 - b. the estimated total annual emissions of sulphur dioxide, fine particulate matter, carbon monoxide, nitrogen dioxide, and nitrous oxide from each source at the site, including the calculation used to determine those results;
 - c. total annual emissions of VOCs as required in Part 5.3 of this permit;
 - d. a summary of the fugitive CH₄ monitoring program including methodology, data, and total fugitive emissions as required in Part 5.4 of this permit; and,

- e. actions taken, results and outcomes of the environmental monitoring plan, by March 31st of each year of this permit for the previous calendar year.

PART 7: UNAUTHORIZED EMISSIONS

1. The permittee shall report to either an environmental protection officer or the 24-hour Yukon Spill Report Centre (**867-667-7244**) as soon as possible under the circumstances in the event of an unauthorized release or emission, such as fugitive emissions or emissions resulting from burning fuel other than that allowed for under this permit.

PART 8: RECORDS

1. The permittee shall keep all records required under this permit in a format acceptable to an environmental protection officer for a minimum of three years and make them available for inspection by an environmental protection officer upon request.
2. The permittee shall keep the following records:
 - a. a copy of each report and approved plans developed under this permit, and any amendments to and approvals (if applicable) of each report and plan;
 - b. summaries of all inspections carried out under this permit (including the name of the person conducting the inspection, the date of each inspection, any observations recorded during the inspection, actions taken as a result of those observations, and the date each action was taken);
 - c. notes concerning any spills, leaks or unauthorized emissions occurring at the site, including substance involved, estimated quantity, date of observation of the spill or leak, spill reports made and clean-up procedures implemented;
 - d. any and all deficiencies remedied in accordance with Part 2.7, and how and when they were remedied; and,
 - e. notes concerning any instance where the most efficient source was not used in accordance with Part 3.3 and the reason for use of the less efficient source.