BAPE2-006

Demande ou Question:

Avez-vous considéré utiliser un système à circuit fermé pour la regazéification du LNG (closed-loop technology) dans vos scénarios de technologie ? Compte tenu des préoccupations relatives aux impacts sur la faune marine, associés à l'utilisation des systèmes ouverts de regazéification (open-loop technology) notamment aux États-Unis (voir le cas McMoRan Exploration Co., LA), pourquoi ne pas avoir considéré cette option ? Discuter comment l'utilisation de cette technologie pourrait s'appliquer à votre projet.

Réponse:

The Submerged Combustion Vapourizer (SCV) technology utilized for the Cacouna Energy terminal is considered to be closed-loop technology.

The vaporization methods considered by Cacouna Energy are described in the Environmental Impact Study, section 2.3.1.

Open-loop Technology (sometimes called open rack technology) involves the consumption of large amounts of water, usually nearby ambient temperature seawater, to provide the heat required to regasify the LNG. Water is drawn into the facility in large amounts, the required heat is extracted from the water and the water is returned to the ocean. The process cools the water significantly, enough to kill much of the water flora, and generally the water must be treated during use to prevent scaling of facility piping.

The Open-loop technology was rejected in part because the water temperature in the St. Lawrence River is viewed as too cold to make this approach viable at this site. However, the closed–loop process chosen also poses significantly less risk to the marine environment.

The closed-loop process used by Cacouna Energy uses natural gas combustion as the heat source to gasify the LNG. Gas combustion heats a water bath, which in turn warms the LNG circulating in pipes through the water bath. The combustion produces water as a by-product, and this additional produced water will be treated to adjust pH as it is piped into the river through a diffuser. For further information on this process, please see CEAA response Q-018.

Please also see the response to BAPE -5.5 and BAPE-23.3.