

October 31, 2025

Via Email: dahluwalia@htec.ca

Attention:

Dhruv Ahluwalia, EIT Applications Engineer
HTEC Hydrogen Technologies & Energy Corporation
450-2920 Virtual Way
Vancouver, BC V5M 0C4

Dear Dhruv Ahluwalia:

Re: **HTEC Hydrogen Manufacturing Facility ID No. 28282**
Application #100120196 - Rev. 0

Decision under Section 47 (2) of the Hydrogen Facility Regulation (the Regulation)

I write regarding the application made by HTEC HYDROGEN TECHNOLOGIES & ENERGY CORPORATION (HTEC) for deviations from the NFPA 2:2023 *Hydrogen Technologies Code* (Code) as required by the Hydrogen Facility Regulation (Regulation) in relation to Facility ID No. 28282.

The HTEC application included the following submissions:

1. Statement of Assurance – Professional Design, from David Scott, dated September 27, 2024.
2. H063-RSM-006 Trapp Avenue Lot Line Setback Justification, Revision 0, dated March 31, 2023.

Regulatory Framework

HTEC's hydrogen facility permit application identifies that the design of its hydrogen manufacturing facility ID No. 28282 (the Facility) is in accordance with the Code, fulfilling requirements of section 3 (4) of the Regulation. However, HTEC stated in its Engineering Statement of Assurance Letter dated 27 September 2024, that they have designed their hydrogen manufacturing facility in accordance with the Code, subject to four deviations, specifically, with respect to clauses 6.5.1.1., 6.17.2, 8.1.3.1 and 8.3.2.3.1.6.

BCER has recognized HTEC's Statement of Assurance Letter as a request for decision under section 47 (2) of the Regulation, which states:

An official may exempt an applicant for a hydrogen facility permit or a hydrogen facility permit holder from complying with one or more provisions of this regulation if the official is satisfied that, in the circumstances,

- (a) compliance with the provision is not reasonably practicable, or*
- (b) the exemption is in the public interest.*

Specifically, the BCER recognizes this as a request for an exemption from section 3 (4) of the Regulation which states:

A hydrogen facility permit holder must design, construct and operate the hydrogen facility that is the subject of the permit in compliance with the code referred to in subsection (2) (c) or the code referred to in subsection (2) (d).

Where section 3 (2) of the Regulation states:

(2) Subject to this section, the following codes and standards, as amended from time to time, are adopted for the purposes of this regulation:

- (a) API Standard 570, Piping Inspection Code: In-service Inspection, Rating, Repair, and Alteration of Piping Systems;*
- (b) CSA Standard Z767, Process safety management;*
- (c) CAN/BNQ 1784-000, Canadian Hydrogen Installation Code, published by the Bureau de normalisation du Quebec;*
- (d) NFPA 2, Hydrogen Technologies Code.*

Decision

I have been delegated authority from the Commissioner to make a determination under section 47(2) of the Regulation. I have reviewed the request and the reasons for my decision follow.

HTEC has requested a deviation from clauses 6.5.1.1., 6.17.2, 8.1.3.1 of the Code. These clauses address, respectively, area classifications, pressure testing and the design, fabrication and testing of piping, tubing, fittings and related components.

I am satisfied the description of the Facility's design, construction and operation in HTEC's Statement of Assurance Letter does not demonstrate that HTEC is deviating from clauses 6.5.1.1., 6.17.2, 8.1.3.1 or that the design, construction and operation cannot also be performed in a manner consistent with the Code. Accordingly, I decline to grant HTEC an

exemption from section 3(4) of the Regulation in respect to clauses 6.5.1.1., 6.17.2, 8.1.3.1 of the Code.

With respect to clause 8.3.2.3.1.6 of the Code, this clause governs prescribed setbacks and reads as follows:

8.3.2.3.1.6 Siting Locations. The minimum distance from bulk liquefied hydrogen (LH₂) systems to specified exposures shall be in accordance with Table 8.3.2.3.1.6(a) based on typical maximum pipe size, or in accordance with Table 8.3.2.3.1.6(b) based on specific pressure and pipe diameter.

Clause 8.3.2.3.1.6 sets separation distances for bulk liquefied hydrogen systems and sets an allowance for distances to be reduced if a fire barrier wall is installed. The separation may be reduced provided the fire barrier wall meets specific requirements, including the requirement that the fire barrier wall does not have more than two sides at a 90-degree angle.

HTEC's design includes a 2-hour fire barrier wall within 9.4m of the hydrogen storage tank with more than two sides at a 90-degree angle.

I recognize HTEC's submission as a request to use an equivalent approach to that of the prescribed exposures setbacks in Clause 8.3.2.3.1.6 of the Code. I note that Clause 1.5 of the Code addresses equivalency:

1.5.1 Nothing in this code is intended to prevent the use of systems, methods, or devices of equivalent or superior quality, strength, fire resistance, effectiveness, durability, and safety over those prescribed by this code.

1.5.2 Technical documentation shall be submitted to the AHJ to demonstrate equivalency.

1.5.3 The system, method or device shall be approved for the intended purpose by the AHJ.

Where, AHJ means the Authority Having Jurisdiction, in this case the BCER.

I am satisfied that an exemption to section 3(4) for the design, construction and operation of the Facility in compliance with Clause 8.3.2.3.1.6 of the Code is appropriate because the requirements are not reasonably practical in the circumstances. HTEC evaluated the fire exposure risk and concluded that reconfiguring the fire barrier to be closer to the hydrogen tank, to better align with the prescribed requirements was likely to increase risk. I have reviewed HTEC's submission and accept these conclusions.

I am satisfied that in this instance where HTEC is deviating from the Code, HTEC has used an equivalent approach, and has submitted the technical documentation to support the approach, that provides equivalent levels of safety to the requirements of Clause 1.5 of the Code.

I have therefore determined as follows:

1. HTEC HYDROGEN TECHNOLOGIES & ENERGY CORPORATION is granted an exemption from the requirement to site liquid hydrogen storage tanks 16.8 m from the lot line as required NFPA 2:2023 Clause 8.3.2.1.6, provided the liquid hydrogen storage tanks are sited as described in *H063-RSM-006 Trapp Avenue Lot Line Setback Justification*, including a minimum distance of 9.4m from any liquid hydrogen storage tank to the fire barrier wall located on the nearest lot line, as included in the HYRAM+ modeling that was performed in *H063-RSM-006 Trapp Avenue Lot Line Setback Justification*.

This conditional exemption applies solely to Facility ID No. 28282. HTEC is required to maintain a copy of this letter with the permit for Facility ID No. 28282.

Regards,



Nicole Koosmann, P.Eng., P.M.P.
Vice President, Safety, Engineering & Audit
British Columbia Energy Regulator
Nicole.Koosmann@bc-er.ca