Cameron LNG

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June 30, 2017

John Manning,
Acting Director, South region,
Pipeline and Hazardous Materials Safety Administration (PHMSA)
8701 S. Gessner, Suite 630
Houston, Texas 77074

Subject: **PHMSA CPF 4-2014 5024W**

Ref: PHMSA Warning Letter, ref. CPF 4-2014 5024W, dated June 13, 2017

Dear Mr. Manning,

Reference is made to the Warning Letter released by Pipeline and Hazardous Materials Safety Administration (PHMSA) to the Cameron LNG LLC ("Cameron LNG") project, dated June 13, 2017. In this letter, PHMSA claims that during an inspection on February 21-24, 2017, Cameron LNG allegedly committed a probable violation of 49 CFR 193. Cameron LNG offers this letter of explanation of compliance in response to the Warning Letter.

Cameron LNG has identified a few statements it believes are inaccurate in the Warning Letter, which may lead to confusion and an incorrect interpretation of the applicable code requirements. The Warning Letter makes reference under the heading ASME B31.3 to two paragraph references, paragraphs 328.5.1 (a) and QW-409.1. However, paragraph QW-409.1 is actually part of ASME Section IX, Article IV and not part of ASME B31.3. In addition, the language from paragraph QW 409.1 paragraph is incomplete. Therefore, paragraph QW 409.1 addresses requirements associated with the development and qualification of Procedure Qualification Records (PQR), which are not relevant to in-process examination requirements and are not identified as an area of concern in the Warning Letter.

Cameron LNG is in compliance with 49 CFR 193, (including § 193.2301 Scope) and, by reference, with NFPA 59-A 2001 and ASME B31.3, because the two referenced welds, FW02 and FW04, reviewed in the field inspection on February 21-24, 2017, do not require in-process examination per the approved welding procedure and applicable codes and standards.

Cameron LNG and its main EPC Contractor have selected, qualified and approved welding procedures for this project in accordance with NFPA 59A (2001 Edition), including Section 6.3.4 and Section 6.3.4.2, which states, "Where welding impact-tested materials, qualified welding procedures shall be selected to minimize degradation of the low-temperature properties of the pipe material. Where welding attachments to unusually thin pipe, procedures and techniques shall be selected to minimize the danger of burn-throughs". Specifically, welding procedure WPS ER70S-3 was utilized for FW02 and FW04 and satisfies the NFPA 59A and B31.3 welding procedure requirements.

In addition, ASME B31.3 only requires in-process visual examinations under the following two instances for Normal Fluid Service:

- § 341.4.1 (b) (1) "In-process examination in accordance with para. 344.7 may be substituted for all or part of the radiographic or ultrasonic examination on a weld-for-weld basis if specified in the engineering design or specifically authorized by the Inspector".
- § 345.2.3 (c) Closure Welds.

Cameron LNG confirms full volumetric examination (radiography) was performed on both welds FW02 and FW04, and neither weld meets the definition of a closure weld in § 345.2.3 (c). Since neither ASME B31.3 § 341.4.1(b)(1) nor § 345.2.3(c) apply to the two referenced welds, there was no requirement to perform in-process visual examination.

The in-process visual examinations that occurred for the FW02 and FW04 welds were only performed in response to a specific request by PHMSA's inspector to witness examples of in-process visual examinations by Cameron LNG's inspectors. Also while examining FW04, PHMSA's inspector asked Cameron LNG's inspector to demonstrate verification of the electrical characteristics, which was done and recorded but not required by code or welding procedure. At the time these examinations occurred, Cameron LNG stated to PHMSA's inspector that in-process visual examinations were not required on these welds and were only performed as examples.

As in-process visual examinations were not required by code or welding procedure for the referenced welds, there is also no requirement to maintain records (such as: electrical characteristics, travel speed variables) or documentation of the root pass and hot pass.

Cameron LNG's inspectors perform full in-process examinations on closure welds as required by ASME B31.3 § 345.2.3(c), and records (including electrical characteristic measurements) are maintained accordingly (ref. Attachment 01: TP 20-269 / FW-02 Quality Controls, as an example). As an added measure beyond code requirements, Cameron LNG's inspectors perform random in-process visual examinations on a daily basis to ensure welders follow the applicable welding procedures and code requirements.

Cameron LNG is prepared to meet with PMSHA and address PHMSA representatives' questions on the information presented in this response at your convenience

Please contact Jamie Gray 832-415-6027 if you have any questions related to this letter or to schedule a follow up discussion.

Sincerely,

Farid Bogani
Chief E&C Officer