

DISTRICT OFFICES:
119 N. COMMERCIAL STREET, SUITE 1350
BELLINGHAM, WA 98225
(360) 733-4500

2930 WETMORE AVENUE, SUITE 9F
EVERETT, WA 98201
(425) 252-3188

E-Mail: Rick.Larsen@mail.house.gov
<http://larsen.house.gov>

Congress of the United States
House of Representatives
Washington, DC 20515-4702

ARMED SERVICES

August 24, 2016

Mr. Jack N. Gerard
President and CEO
American Petroleum Institute
1220 L Street, NW
Washington, D.C. 20005

Dear Mr. Gerard:

On April 2, 2010, the Tesoro petroleum refinery in Anacortes experienced a catastrophic rupture of a heat exchanger. According to the final investigation report of the U.S. Chemical Safety and Hazard Investigation Board (CSB), the heat exchanger ruptured due to a High Temperature Hydrogen Attack (HTHA). Highly flammable hydrogen and naphtha were released from the ruptured heat exchanger and ignited, resulting in an explosion and a fire that burned for more than three hours. Tragically, seven Tesoro employees were killed.

Current industry practice to determine the vulnerability of equipment to HTHA is set forth by the American Petroleum Institute's (API) Recommended Practice (RP) 941, known as *Steels for Hydrogen Service at Elevated Temperatures and Pressures in Petroleum Refineries and the Petrochemical Plants*. To determine the standard, API uses "Nelson Curves" which help predict the conditions under which HTHA occurs in various types of steel. In their investigation of the Tesoro rupture, CSB found that RP 941 did not contain any minimum requirements to prevent HTHA, did not require the use of safer design where feasible, and did not require verification of operating conditions. Consequently, CSB recommended that API revise RP 941.

In response, in February of this year, API published an updated standard. While CSB believes the standard makes some improvements, they do not believe it adequately addresses their recommendations. Specifically, CSB has said the updated standard does not take into account all of the conditions where catastrophic failure could occur due to HTHA. Additionally, CSB cites the lack of minimum requirements to prevent equipment failure due to HTHA or require the use of safer materials. As a result, CSB concluded that API took insufficient action with regards to their recommendation, and subsequently issued a safety alert on August 11.

The safe operation of refineries in Washington state and throughout the country is of utmost importance. As API fully examines CSB's safety alert, I ask that you provide me with specificity on how, if at all, you plan to address each aspect of the safety alert guidance. In addition, as the standard setting body for the oil and natural gas industry, I ask that you provide me details on how API went about updating RP 941, as well as the stakeholders involved in that process. As we continue to address safety at refineries across the country, I appreciate API's role in ensuring best practices are disseminated throughout the industry.

Thank you for your timely consideration of my concerns and I look forward to your response. Please do not hesitate to contact me if you have any questions or concerns.

Sincerely,



Rick Larsen

Member of Congress

Washington State, 2nd District