

U.S. Department of
Homeland Security

United States
Coast Guard



Commandant
United States Coast Guard

2703 Martin Luther King Jr. Ave S.E.
STOP 7509
Washington, DC 20593-7509
Staff Symbol: CG-ENG-5
Phone: (202) 372-1419
Fax: (202) 372-8380
Email: cristina.e.nelson@uscg.mil

16703/33-154/2014-825
06OCT2014

Mr. Blake Vaughn
John Zink Company, LLC
11920 East Apache St.
Tulsa, OK 74116

Subj: BURNER EXEMPTION FOR OHIO OIL AND GATHERING (ENLINK) LOADING
FACILITY IN NEWPORT, OH

Dear Mr. Vaughn:

This letter is in response to your letter dated September 4, 2014, which requested an exemption from the requirements of Title 33, Code of Federal Regulations (CFR), Paragraph 154.2109(b)(3)(i) for a new marine vapor control system (VCS) to be owned and operated by Kinder Morgan at their loading facility in Newport, OH. Paragraph 33 CFR 154.2109(b)(3)(i) requires an anti-flashback burner accepted by the Commandant to be installed at each burner within the vapor destruction unit (VDU) in lieu of a liquid seal at the inlet to a VDU. You stated that the VCS will be used to control vapors displaced during the loading of hydrocarbon liquids into non-inerted vessels and provided drawings and Piping and Instrument Diagrams (P&IDs) with your letter. The VCS will consist of one Dock Safety Unit (DSU) and one vapor combustion unit (VCU) equipped with John Zink anti-flashback burners. Testing results provided in your company's letter to our office dated April 26, 1996 show that John Zink anti-flashback burners provide a level of safety at least as great as that of a liquid seal;

Your request for an exemption from the requirement of 33 CFR 154.2109(b)(3)(i) is granted for the marine VCS located at Ohio Oil and Gathering (EnLink) in Newport, OH, according to the following conditions:

1. John Zink anti-flashback burners (or anti-flashback burners proven to have greater ability to prevent flame flashback, i.e., passing longer endurance burn test) shall be installed in the flare.
2. A thermocouple shall be securely installed in each vapor inlet line just outside the combustion stack, not more than 5 feet from the furthest anti-flashback burner, so that the temperature of vapor in the inlet line in operation is measured continuously throughout the entire VCS operation.
3. Any thermocouple penetration in the vapor inlet lines shall be sealed to prevent a flame entering the vapor lines.
4. The thermocouples shall be set to activate the emergency shutdown system required by 33 CFR 154.550 and VCS shutdown systems required by 154.2109(d) when the temperature measured by the thermocouples rises above a shutdown set point. The set point shall be 250°F or less for cargoes with an auto-ignition temperature equal to or higher than 300°F, or it shall be 50°F lower than the auto-ignition temperature for cargoes with an auto-ignition temperature lower than 300°F. For cargoes with an unknown auto-ignition temperature, the flash point of the cargo should be used.

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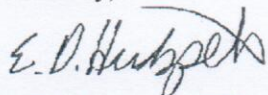
5. A differential pressure sensor that activates the two quick-closing valves shall be installed on the detonation arrester at the inlet to the flare to prevent vapor backflow.
6. The purge cycle required by 33 CFR 154.2107(a) shall provide enough enriching gas downstream of the injection point so that the vapor collection line achieves a minimum of two-volume exchanges of enriching gas prior to receiving cargo vapor.

My staff is familiar with the John Zink anti-flashback burners that will be used in the VCS at the Ohio Oil and Gathering facility in Newport, OH. These burners are effective in preventing a flashback based on the test data your company has submitted to my office. However, it has not been independently tested using accepted flame arrester standards. The John Zink anti-flashback burners must be installed with thermocouples at the flare as a safety backup. The thermocouples will measure the temperature of vapor in the vapor inlet lines to determine how effective the anti-flashback burners are in keeping the temperature of the incoming vapor well below its auto-ignition temperature and to provide an early detection of burner failure.

This exemption is granted only for the marine VCS operations at the Ohio Oil and Gathering facility in Newport, OH. A copy of this exemption letter shall be incorporated into each copy of the facility operations manual. In addition, the facility operator shall ensure that a copy of this exemption letter is made part of the facility's VCS certification letter that is provided to the cognizant Coast Guard Captain of the Port

If you have any questions regarding this matter, please contact LT Cristina Nelson, of my staff, at (202) 372-1419 or by e-mail at cristina.e.nelson@uscg.mil.

Sincerely,



E. D. Hudspeth, CDR
Chief, Hazardous Materials Division
By direction of the Commandant

Copy: Sector Ohio Valley
MSU Huntington