

**To:** Jackson, Ryan[jackson.ryan@epa.gov]  
**From:** Lott, Trent  
**Sent:** Wed 11/29/2017 4:47:32 PM  
**Subject:** Lott Follow up TOTE Permit  
[2014 11 04 TOTE Amended Permit signed.pdf](#)  
[Tote Permit July 31, 2012.pdf](#)  
[TOTEexemption.pdf](#)

Ryan,

By all accounts, TOTE and I were very pleased and appreciated the attention that Administrator Pruitt and you afforded us in your offices on September 27, 2017. As you recall, one option raised during the meeting and one that TOTE desires is moving forward with an extension of the preexisting application approach

I also see merit in this approach and provided to your attention several documents to assist in moving forward in that direction in an email dated November 6, 2017 (provided below).

Recognizing that it has been two months since our initial meeting, I request to meet or conference with Administrator Pruitt and/or you at your earliest convenience.

Trent Lott

**From:** Lott, Trent  
**Sent:** Monday, November 6, 2017 1:01 PM  
**To:** [Jackson.ryan@epa.gov](mailto:Jackson.ryan@epa.gov)  
**Subject:** TOTE Permit

Ryan,

Thanks for your response last Friday and update that you are working through the TOTE permit situation.

TOTE prefers and I see merit with moving forward with an extension on the preexisting application approach that was discussed during the September 27, 2017 meeting with you and Administrator Pruitt.

In addition to the preexisting application and other documents previously advanced with EPA (attached), I thought it would be helpful to share the text below from the International Maritime Organization (IMO) which allows for the 5 year extension to the permit.

Please know that TOTE and I very much appreciate your attention and support of the LNG vessel permit issue.

Trent

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<http://www.imo.org/en/KnowledgeCentre/IndexofIMOResolutions/Marine-Environment-Protection-Committee-%28MEPC%29/Documents/MEPC.176%2858%29.pdf>

Trials for ship emission reduction and control technology research

2 The Administration of a Party may, in cooperation with other Administrations as

appropriate, issue an exemption from specific provisions of this Annex for a ship to conduct trials

for the development of ship emission reduction and control technologies and engine design

programmes. Such an exemption shall only be provided if the applications of specific provisions

of the Annex or the revised NOx Technical Code 2008 could impede research into the

development of such technologies or programmes. A permit for such an exemption shall only be

provided to the minimum number of ships necessary and be subject to the following provisions;

.1 for marine diesel engines with a per cylinder displacement up to 30 litres, the

duration of the sea trial shall not exceed 18 months. If additional time is required,

a permitting Administration or Administrations may permit a renewal for one

additional 18-month period; or

.2 for marine diesel engines with a per cylinder displacement at or above 30 litres,

the duration of the ship trial shall not exceed 5 years and shall require a progress review by the permitting Administration or Administrations at each intermediate survey. A permit may be withdrawn based on this review if the testing has not adhered to the conditions of the permit or if it is determined that the technology or programme is not likely to produce effective results in the reduction and control of ship emissions. If the reviewing Administration or Administrations determine that additional time is required to conduct a test of a particular technology or programme, a permit may be renewed for an additional time period not to exceed five years.

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#US

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**UNITED STATES COAST GUARD AND UNITED STATES ENVIRONMENTAL  
PROTECTION AGENCY FIRST AMENDED PERMIT TERMS AND CONDITIONS  
TO SUPPORT THE EXEMPTION FROM THE REQUIREMENTS UNDER APPS AND  
MARPOL ANNEX VI REGULATION 14.4 TO USE ECA-COMPLIANT FUEL FOR M/  
MIDNIGHT SUN AND M/V NORTH STAR**

A. Background

Totem Ocean Trailer Express (TOTE), a U.S. flag Jones Act Carrier, requested that the United States Government (USG) issue a Permit for a ship emission reduction and control technology research project (Trial Program) pursuant to the Act to Prevent Pollution from Ships, 33 U.S.C. §§ 1905-1915 (APPS) and the International Convention for the Prevention of Pollution From Ships (MARPOL) Annex VI, Regulation 3. On July 31, 2012, the USG issued a Permit to TOTE that would expire September 30, 2016.

On or about June 17, 2014, TOTE requested an amendment to the Permit terms and conditions for the Trial Program, which applies to the U.S. flag, roll-on/roll-off (RO/RO), cargo vessels *M/V MIDNIGHT SUN* (ON 1128203, IMO 9232278) and *M/V NORTH STAR* (ON 1139532, IMO 9232280) (the Vessels). TOTE's proposal for the Trial Program requires activities in three main areas:

1. ENGINES – Removing the four existing main engines (engines), replacing them with dual-fueled liquefied natural gas (LNG) and diesel main engines, and completing fuel system modifications for each of the Vessels that operate between Tacoma, Washington, and Anchorage, Alaska;
2. REFUELING FACILITIES – Assisting in the development of LNG refueling facilities and procedures for the Vessels in the Puget Sound region;
3. SHORESIDE POWER FACILITIES – Assisting in the development of alternative power generation and use procedures for the Vessels in Anchorage, Alaska;

The June 17, 2014 proposal also asked for a six month extension of the permit expiration date.

After careful review and consideration by the USG, the amendments to the Permit terms and conditions submitted are hereby accepted. Therefore, effective this date, these amended terms and conditions of the Amended Permit for exemption (*hereafter referred to as the Permit*), supersede the original Permit terms and conditions issued by the USG on July 31, 2012, which is hereby considered terminated.

This Permit, issued pursuant to the APPS, consists of a temporary exemption of the fuel sulfur content requirements that would otherwise apply to the Vessels during that period while operating in those portions of the North American Emission Control Area (ECA) described below, subject to the conditions of this Permit. This action extends the expiration date to March 31, 2017.

This temporary exemption for the Trial Program has broader applications for the marine industry and the development of LNG fuel infrastructure in the region. The Trial Program will promote the development and use of low-polluting LNG engine technology by obviating the need for vessel and fuel system modifications that would be necessary to comply with the North American ECA fuel sulfur limits from the date of this Permit until March 31, 2017, when all of the replacement engines are expected to be in operation. These include engine and fuel system modifications that could impede the LNG development project. Although this Permit will result in a near term emission increase, the LNG-converted ships will achieve sulfur reductions more than 95 percent below that required by the 2015 fuel sulfur standards. In addition, with the use of shore power and equivalent power generation measures, TOTE will achieve emission reductions in the Port of Tacoma and Port of Anchorage greater than would be achieved by the fuel sulfur standards alone.

The Trial Program that is the subject of this Permit will also provide important information with respect to the development and application of advanced sulfur control technologies for other marine engines. Specifically, the development of the se LNG engines as well as fuel storage and delivery systems on the Vessels is expected to promote the use of these systems on other engines and vessels. In addition, the Trial Program will create an incentive for a local power company to install an LNG refueling facility in the Puget Sound region, which is a critical first step in developing an LNG infrastructure for multiple users in this region. The development of such an infrastructure should provide further incentives for expanded use of LNG on ships as well as drayage trucks and other cargo handling equipment, and the information gained will also be helpful to other ports as they investigate the advantages and challenges of establishing shoreside LNG facilities for marine vessels and other mobile applications. Finally, the continued development of shoreside power options would be available to other ships that use these ports.

The USG is today issuing an amended Permit for exemption, in accordance with MARPOL Annex VI Regulation 3 and APPS, consistent with the following definitions and specified terms, subject to compliance by TOTE to these terms and conditions. The USG anticipates that the experience s of TOTE through this Trial Program will be useful to develop and evaluate the potential of LNG engine repower as an advanced sulfur control technology. The exemption contained in this Permit will expire no later than March 31, 2017.

This Permit only provides for an exemption with respect to the fuel sulfur content requirements set forth in Annex VI Regulation 14.4 and required under APPS and regulations issued thereunder; it otherwise neither amends nor repeals any other requirement or authority of any applicable provision of Annex VI or of law. Compliance with this Permit shall be treated as compliance with MARPOL Annex VI Regulation 14.4 and related requirements under APPS and regulations issued thereunder.

## B. Definitions

Except as specified below, terms used in this Permit shall have meanings as defined in the following documents, in the following order (i.e. if not found in the first document, the controlling document is the second): (i) The Act to Prevent Pollution from Ships, 33 U.S.C. §§1901 et. seq.; (ii) The

International Convention for the Prevention of Pollution from Ships (MARPOL), Annex VI; (iii) The Clean Air Act, 42 U.S.C. Chapter 85.

*Area of Operation* means the North Pacific Area, defined as the area northward from the northern border of the State of California, within U.S. regions, extending out to the boundary of the North American Emission Control Area (ECA).

*TOTE* means Totem Ocean Trailer Express, Inc., an Alaska corporation with U.S. flag Jones Act vessels operating between Tacoma, Washington, and Anchorage, Alaska.

*Responsible Official* means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation.

*Installation Period* means the period of time commencing when this Permit is issued and terminating upon entry into regular commercial operation of the LNG engines on the second Vessel (expected to be the M/V NORTH STAR) and entry into operation of the necessary shoreside LNG refueling facility, during which period TOTE will replace the main engines on the Vessels with LNG engines.

*LNG Engines* means the dual-fuel LNG and diesel main engines to be installed in the Vessels.

## C. General

### 1. Termination.

- a. The USG may revoke or modify this Permit if at any point TOTE is not compliant with MARPOL Annex VI and APPS, including but not limited to the Trial Program requirements and conditions herein. The requirements of MARPOL Annex VI Regulation 14 and APPS regulations shall apply as of the date of the noncompliance that forms the basis for the revocation.
- b. TOTE may surrender its Permit at any time, except the USG reserves its right to revoke the Permit under paragraph C.1.a., based on noncompliance with the terms of the Permit, prior to accepting the termination of the Permit.

### 2. Term of Permit.

- a. The exemption from the fuel sulfur standards allows the use of fuel with a sulfur level up to 2.2% prior to July 1, 2015, and up to an annual average of 1.80% on or after July 1, 2015. This exemption will terminate no later than March 31, 2017.

### 3. Conditions of Permit – Progress by TOTE.

#### a. ENGINES

- i. Through the reporting process set forth in paragraph G.1. of this Permit, TOTE must show it is making progress toward the development and installation of LNG retrofit systems, during the Installation Period, with a view to replace all the main engines on the Vessels by March 31, 2017. TOTE shall complete the installation of all the LNG engines no later than March 31, 2017.

- ii. To show progress, TOTE will complete the retrofit of one vessel and run successful sea trials on LNG by March 31, 2016.

b. REFUELING FACILITIES

- i. Through the reporting process set forth in paragraph G.1. of this Permit, TOTE must show, monitor and report progress toward the installation and operation of LNG refueling facilities in the Puget Sound region during the Installation Period, with a view to ensuring reliable LNG supplies for the Vessels by no later than April 30, 2016.
- ii. It is understood that TOTE will require interim supplies of LNG during the Installation Period to support installation, LNG testing, type approval, and entry into regular commercial operation of the new engines. TOTE must develop and obtain approval by USG of an interim method to supply LNG fuel to the Vessels during the Installation Period and until such time as reliable long term LNG supplies can be established.

c. SHORESIDE POWER FACILITIES

- i. TOTE shall continue to use shore power for the Vessels while at berth in Tacoma, Washington.
- ii. Through the reporting process set forth in paragraph G.1. of this Permit, TOTE must show progress toward the development of alternative ship-generated power using either LNG or distillate fuel with a sulfur level no greater than 15 ppm while at berth in Anchorage, Alaska, beginning no later than January 1, 2015.

4. Conditions of Permit – Incident and Malfunction Reporting.

- a. TOTE shall promptly notify the USG of the discovery of any incident or development that will affect the dates set out in paragraph C.3. This notification shall include a report describing the incident or development, including a malfunction in the test engine, the date of the incident or development, the estimated impact on the scheduled dates described in paragraph C.3, and the actions that are being taken to address the delay.
- b. Compliance with this incident or malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this Permit or any law or regulation such malfunction may cause.

5. Liability of TOTE. Except where specifically noted, this Permit does not release TOTE from any liability for noncompliance with other requirements that apply in the U.S. portions of the North American ECA, including applicable federal, state, and local environmental laws and regulations, including the Clean Air Act and the Act to Prevent Pollution from Ships.

6. Temporary IAPP or COI Documentation. A copy of this Permit, certified by the USG, shall be affixed to the International Air Pollution Prevention (IAPP) certificate or Certificate of Inspection (COI) for each of the Vessels included in the LNG Trial Program for the purpose of compliance with applicable fuel sulfur limits.

7. Permanent IAPP or COI Documentation. No later than March 31, 2017, the IAPP or COI for each of the Vessels included in the LNG Trial Program will be revised to specify that the compliance strategy for applicable fuel sulfur controls consists of the following:
  - a. The use of LNG fuel in each of four main engines on the Vessel while the Vessel is operating in the North American ECA, unless LNG fuel is unavailable or technical or safety considerations preclude its use.
  - b. The use of shore power or, in the event shore power is unavailable due to a power outage or other reason, the use of ship-generated power using LNG or distillate fuel with sulfur content not to exceed 15 ppm while the Vessels are at berth in Tacoma, Washington.
  - c. The use of ship-generated power using LNG or distillate fuel with sulfur content not to exceed 15 ppm while the Vessels are at berth in any other port in the North American ECA.

#### D. Conditions of Permit - LNG Engine Development Program

1. TOTE, working with its engine manufacturer, shall replace with LNG engines each of the large diesel generators (MDG) installed on the following vessels:
  - a. M/V MIDNIGHT SUN – 4 MDGs: MAN 9L58/64  
Serial numbers: 1 110 237, 1 110 238, 1 110 239, 1 110 240
  - b. M/V NORTH STAR – 4 MDGs: MAN 9L58/64  
Serial numbers: 1 110 241, 1 110 242, 1 110 243, 1 110 244
2. TOTE intends to complete installation of the LNG engines and associated fuel system modifications on the M/V MIDNIGHT SUN by March 31, 2016 and on the M/V NORTH STAR by March 31, 2017. The LNG testing, type approval, and entry into regular commercial operation of the LNG engines on the M/V MIDNIGHT SUN will be completed within 60 days of completion of the LNG engine installation. The LNG testing, type approval, and entry into regular commercial operation of the LNG engines on the M/V NORTH STAR will be completed by March 31, 2017.
3. Prior to the termination of the Installation Period, fuel with sulfur content not more than 2.20% m/m (22,000 ppm) may be used in the engines while the Vessels are operating in the Area of Operation. Beginning July 1, 2015, the annual average fuel sulfur content of the fuel used by the engines in each Vessel shall not exceed 1.80% m/m (18,000 ppm) for each calendar year thereafter. As each Vessel enters into regular commercial operation during the Installation Period, LNG shall be used while the Vessel is operating in the Area of Operation, unless LNG fuel is unavailable or technical or safety considerations preclude its use.

#### E. LNG Refueling Facility Development Program

TOTE, working with Port Authorities in the Puget Sound region, shall promote reliable LNG refueling facilities for the Vessels. The refueling facilities will provide adequate LNG fuel to ensure that the necessary fuel is available following the Installation Period.

## F. Conditions of Permit - Shore Power Program

1. TOTE shall continue to use shore power in place of ship-generated power while at berth in Tacoma, Washington.
2. TOTE shall use ship-generated power using either LNG or distillate fuel with a sulfur level no greater than 15 ppm while at berth in Anchorage, Alaska, beginning no later than January 1, 2015. Such ship-generated power will result in sulfur emissions not in excess of mandated requirements.
3. Except when Coast Guard Winter Guidelines (ice rules) in Cook Inlet, Alaska are in effect, TOTE agrees to continue to use the ship-generated power described in paragraph F.2. while at berth in Anchorage, Alaska.

## G. Recordkeeping and Reporting

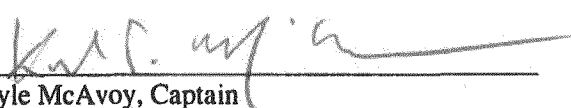
1. TOTE shall provide the following reports:
  - a. Initial Report. TOTE previously provided the Initial Report as required in the original 2012 Permit.
  - b. Interim Reports. TOTE shall provide an interim report within 45 days after the end of each calendar quarter of each year with the following information:
    - i. A summary of progress toward achieving the goals described in this Permit.
    - ii. Identification of any missed milestones and expected corrective action, including a description of how the milestone will be achieved before the end of the next reporting period.
    - iii. A description of any constraints that are expected to affect achievement of the milestones during the next period.
    - iv. A summary of sulfur levels for the fuel consumed in that quarter and calculations showing the average fuel sulfur content meets the requirement in Paragraph D.3.
    - v. Additional information regarding achievement of the repower project, LNG refueling access, and alternative methods of power generation while the Vessels are at berth in Anchorage, Alaska, over the remainder of the year (such as repairs or improvements).
  - c. Final Report. TOTE shall provide a final report, within 45 days after the Installation Period, documenting the pilot project including engine repower, refueling facilities, and alternative methods of power generation while the Vessels are at berth. This report shall aggregate and summarize the information provided in the interim reports.
  - d. Confidential Business Information. By accepting the terms of this Permit, TOTE agrees that information in this Permit would not be entitled to confidential protection and would be disclosed without further notice to TOTE. Interim and final reports are understood to not contain confidential business information, unless TOTE specifically identifies information as confidential at the time the report is submitted but the USG will have the final determination as to whether or not to accept such claims. Such a business confidentiality claim may cover part or all of the information submitted, other than

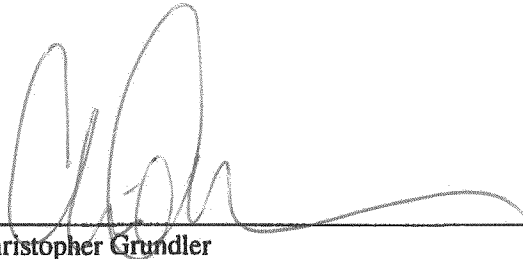
effluent data and information that is otherwise publicly available, as described in applicable regulations. Information covered by a claim of confidentiality and agreed to by the USG will be disclosed by the parties only to the extent of, and by means of, the procedures set forth in applicable regulations. TOTE shall provide a public version of the final report, that does not contain confidential business information, which shall document (i) the non-proprietary information learned during the trial program that could be of use to external stakeholders (including any installation issues and how they were resolved) and (ii) the results of any emission measurements of the LNG engines.

- e. Certification. Each report shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Each report shall be signed by a responsible official.
- f. Recordkeeping. TOTE shall keep copies of the notifications, reports, and other submissions required under this Trial Program for at least 5 years after the date any report, notification, or submission is required to be created or submitted.
- g. Addresses. TOTE shall submit the above reports to the USG at the following addresses:

- i. U.S. Coast Guard  
Office of Commercial Vessel Compliance  
Domestic Compliance Division  
2703 Martin Luther King Jr. Ave SE  
Stop 7501  
Washington, DC 20593-7501  
Phone: (202) 372-1435  
E-mail: CG-CVC-1@uscg.mil

- ii. U.S. Environmental Protection Agency  
Office of Transportation & Air Quality  
Compliance Division  
Phone: (202) 343-9755  
E-mail: marine-eca@epa.gov

  
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Kyle McAvoy, Captain  
Chief, Office of Commercial Vessel Compliance  
U.S. Coast Guard

  
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Christopher Grundler  
Director, Office of Transportation and Air Quality  
U.S. Environmental Protection Agency