6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

[EPA-HQ-OAR-2014-0738 and EPA-HQ-OAR-2010-0682; FRL-9990-25-OAR]

Notice of Request for Approval of Alternative Means of Emission Limitation

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice; request for comments.

SUMMARY: This action provides public notice and solicits comment on the alternative means of emission limitation (AMEL) request from Shell Oil Products U.S. Martinez Refinery (Shell Martinez) under the Clean Air Act, to operate a multi-point ground flare (MPGF) at a refinery in Martinez, California. In this action, the U.S. Environmental Protection Agency (EPA) is soliciting comment on all aspects of this AMEL request and the corresponding operating conditions that would demonstrate that the requested AMEL will achieve a reduction in emissions of hazardous air pollutants (HAP) at least equivalent to the reduction in emissions required by the National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries ("Petroleum Refinery Maximum Achievable Control Technology (MACT)"). The Shell Martinez delayed coking unit (DCU) MPGF cannot meet the flare tip velocity limits in the Petroleum Refinery MACT. Based on our review of this request and supporting information, we conclude that, by following the conditions specified in this notice, the Shell Martinez DCU MPGF will achieve at least equivalent emissions reductions as flares complying with the Petroleum Refinery MACT requirements.

DATES: *Comments*. Comments must be received on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: *Comments*. Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2014-0738, at *https://www.regulations.gov*. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. See **SUPPLEMENTARY INFORMATION** for detail about how the EPA treats submitted comments. Regulations.gov is our preferred method of receiving comments. However, the following other submission methods are also accepted:

- *Email:* a-and-r-docket@epa.gov. Include Docket ID No. EPA-HQ-OAR-2014-0738 in the subject line of the message.
- *Fax:* (202) 566-9744. Attention Docket ID No. EPA-HQ-OAR-2014-0738.
- *Mail:* To ship or send mail via the United States Postal Service, use the following address: U.S. Environmental Protection Agency, EPA Docket Center, Docket ID No. EPA-HQ-OAR-2014-0738, Mail Code 28221T, 1200 Pennsylvania Avenue, NW, Washington, DC 20460.
- *Hand/Courier Delivery:* Use the following Docket Center address if you are using express mail, commercial delivery, hand delivery, or courier: EPA Docket Center, EPA WJC West Building, Room 3334, 1301 Constitution Avenue, NW, Washington, DC 20004. Delivery verification signatures will be available only during regular business hours.

FURTHER INFORMATION CONTACT: For questions about this action, contact Ms. Angie Carey, Sector Policies and Programs Division (E143-01), Office of Air Quality Planning and Standards (OAQPS), U.S. Environmental Protection Agency, Research Triangle Park, North

Carolina 27711; telephone number: (919) 541-2187; fax number: (919) 541-0516; and email address: *carey.angela@epa.gov*.

SUPPLEMENTARY INFORMATION:

Docket. The EPA has established a docket for this rulemaking under Docket ID No. EPA-EPA-HQ-OAR-2014-0738. All documents in the docket are listed in Regulations.gov. Although listed, some information is not publicly available, *e.g.*, Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy. Publicly available docket materials are available either electronically in Regulations.gov or in hard copy at the EPA Docket Center, Room 3334, EPA WJC West Building, 1301 Constitution Avenue, NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the EPA Docket Center is (202) 566-1742.

Instructions. Direct your comments to Docket ID No. EPA-HQ-OAR-2014-0738. The EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *https://www.regulations.gov*, including any personal information provided, unless the comment includes information claimed to be CBI or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *https://www.regulations.gov* or email. This type of information should be submitted by mail as discussed below.

The EPA may publish any comment received to its public docket. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written

comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.*, on the Web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets*.

The *https://www.regulations.gov* website allows you to submit your comment anonymously, which means the EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to the EPA without going through *https://www.regulations.gov*, your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, the EPA recommends that you include your name and other contact information in the body of your comment and with any digital storage media you submit. If the EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, the EPA may not be able to consider your comment. Electronic files should not include special characters or any form of encryption and be free of any defects or viruses. For additional information about the EPA's public docket, visit the EPA Docket Center homepage at *https://www.epa.gov/dockets*.

Submitting CBI. Do not submit information containing CBI to the EPA through *https://www.regulations.gov* or email. Clearly mark the part or all of the information that you claim to be CBI. For CBI information on any digital storage media that you mail to the EPA, mark the outside of the digital storage media as CBI and then identify electronically within the digital storage media the specific information that is claimed as CBI. In addition to one complete

version of the comments that includes information claimed as CBI, you must submit a copy of the comments that does not contain the information claimed as CBI directly to the public docket through the procedures outlined in *Instructions* above. If you submit any digital storage media that does not contain CBI, mark the outside of the digital storage media clearly that it does not contain CBI. Information not marked as CBI will be included in the public docket and the EPA's electronic public docket without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. Send or deliver information identified as CBI only to the following address: OAQPS Document Control Officer (C404-02), OAQPS, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, Attention Docket ID No. EPA-HQ-OAR-2014-0738.

Acronyms and Abbreviations. We use multiple acronyms and terms in this notice. While this list may not be exhaustive, to ease the reading of this notice and for reference purposes, the EPA defines the following terms and acronyms here:

AMEL	alternative means of emission limitation
BTU/scf	British thermal units per standard cubic foot
CBI	Confidential Business Information
CFR	Code of Federal Regulations
DCU	delayed coking unit
EPA	Environmental Protection Agency
Eqn	equation
FGR	flare gas recovery
HAP	hazardous air pollutants
MACT	maximum achievable control technology
MPGF	multi-point ground flare
NESHAP	national emission standards for hazardous air pollutants
NHV_{cz}	net heating value of combustion zone gas
OAQPS	Office of Air Quality Planning and Standards

Organization of This Document. The information in this notice is organized as follows:

IV. Request for Comments

I. Background

Regulatory Flare Requirements and AMEL Requests

The provisions in the Petroleum Refinery MACT, at 40 Code of Federal Regulations (CFR) 63.670 (d) specify operating requirements for flares used for emission points subject to the Petroleum Refinery MACT to ensure that the applicable standards for those emission points are met. The MACT, at 40 CFR 63.670 (r) allows the EPA to approve a site-specific AMEL for a given flare if, after notice and opportunity for comment, it is established to the Administrator's satisfaction that the flare achieves 96.5-percent combustion efficiency (and 98-percent destruction efficiency) using the requested AMEL.

AMEL requests have been submitted to the EPA for an MPGF that cannot comply with the applicable flare tip velocity requirements in the Petroleum Refinery MACT, 40 CFR 63.670(d). These maximum flare tip velocity requirements ensure that the flame does not "lift off" or separate from the flare tip, which could cause flame instability and/or potentially result in a portion of the flare gas being released without proper combustion. Proper combustion for flares is considered to be 98-percent destruction efficiency or greater for organic HAP and volatile organic compounds. Shell Martinez submitted an AMEL request to operate a flare with tip exit velocities greater than those allowed in 40 CFR 63.670 (d) while achieving ≥ 96.5-percent combustion efficiency and 98-percent destruction efficiency.

Specifically, this request from Shell Martinez, which was submitted to the EPA on June 1, 2018, seeks an AMEL to operate an MPGF for its DCU at its Martinez Refinery during upset emergency conditions. This DCU is subject to the Petroleum Refinery MACT, 40 CFR part 63, subpart CC; accordingly, the request followed the AMEL framework specified in 40 CFR part

63, subpart CC at 40 CFR 63.670(r). The DCU MPGF design in this request is a multi-point tip design which employs large numbers of tips close to ground level (these are termed multi-point ground flares [MPGF]). The EPA has reviewed this request and has deemed it to be complete.

As mentioned above, Shell Martinez submitted this AMEL request to operate its DCU MPGF above the applicable maximum permitted velocity requirements at 40 CFR 63.670(d). Shell Martinez provided information to demonstrate that the DCU MPGF design achieves 96.5-percent combustion efficiency and 98-percent destruction efficiency using the requested AMEL, as required at 40 CFR 63.670(r). For further information on Shell Martinez's AMEL request, see supporting materials from Shell Martinez at Docket ID No. EPA-HQ-OAR-2010-0682 and EPA-HQ-OAR-2014-0738.

II. Requests for AMEL Shell Martinez DCU MPGF

The Shell Martinez DCU includes an MPGF used to safely combust large volumes of high pressure, non-condensable, flammable vapor streams during upset or emergency conditions. The Martinez Refinery requested a minimum net heating value of the combustion zone (NHV_{cz}) limit of 800 British thermal units per standard cubic feet (BTU/scf) that has been granted to other similarly designed MPGFs in the past. Specifically, the MPFG for which an AMEL was granted to Occidental Chemical Corporation, "Occidental" (81 FR 23480), utilizes the same Callidus MP-4 burner design that is employed at the Shell Martinez MPGF. The Callidus MPGF design uses cycling high pressure burners to maintain the required kinetic energy to ensure smokeless combustion. The Shell DCU MPGF contains 30 pilots, supplied with natural gas, that are installed to provide the source of ignition to ensure that emergency relief of process streams will be combusted. Shell Martinez uses flare gas recovery (FGR) compressors and manages the rate of gases vented to the flare system during startup, shutdown, and maintenance activities to limit

flaring events only during emergencies. The three major causes of flaring at the DCU MPGF historically have been loss of FGR compressors, loss of DCU wet gas compressor, and distillate hydrotreater depressuring.

Information Supporting Shell's AMEL Requests

As mentioned above, Shell Martinez provided the information specified in the flare AMEL framework at 40 CFR 63.670(r) to support their AMEL request. The information specified in the framework includes, but is not limited to: (1) details on the project scope and background; (2) information on regulatory applicability; (3) flare test data on destruction efficiency/combustion efficiency; (4) flare stability testing data; (5) flare cross-light testing data; (6) information on flare reduction considerations; and (7) information on appropriate flare monitoring and operating conditions. For further information on the supporting materials provided, see Docket ID No. EPA-HQ-OAR-2010-0682 and EPA-HQ-OAR-2014-0738.

Information supplied indicates that the DCU MPGF can achieve 96.5-percent combustion efficiency and 98-percent destruction efficiency if operated under certain conditions, as specified in section III below. Generally, testing of burners for the vent gas mixture determined to be representative of the flare operation was used to set the appropriate NHV_{cz} minimum limit. In this case, Shell Martinez's burner design (*i.e.*, Callidus MP-4) is the same design as that in the AMEL EPA approved for Occidental (81 FR 23480). Shell Martinez submitted the Callidus MP-4 burner testing information that Occidental previously submitted to the EPA for its AMEL request. Shell Martinez is requesting an NHV_{cz} limit of 800 BTU/scf, the same limit that was requested and approved in that prior Occidental AMEL request. This MP-4 burner model was shown to achieve the required combustion and destruction efficiency at a minimum NHV_{cz} of 800 BTU/scf for gases produced in olefins manufacturing, which are considered the worst case for

combustion and stability. Since in that prior action we approved an AMEL at 800 BTU/scf for olefins gas, which is more likely than other types of waste gas to have issues with stability and tendency to smoke, and since Shell's reported waste gas composition contains relatively fewer olefinic compounds, we would expect better combustion efficiency/destruction efficiency at the same NHV_{cz}. Therefore, we concur that achieving a minimum NHV_{cz} of 800 BTU/scf in this case will ensure adequate combustion and destruction efficiency.

III. AMEL for the DCU MPGF

The Agency is seeking the public's input on the request that the EPA approve the AMEL for this DCU MPGF. Specifically, the EPA seeks the public's input on the following proposed conditions of $NHV_{cz} \geq 800$ BTU/scf for the Shell Martinez's DCU's MPGF.

(1) The MPGF must be operated according to the requirements of the Petroleum Refinery MACT, including 40 CFR 63.670 and 63.671, except that all references to a combustion zone heating value of 270 BTU/scf are replaced with a value of 800 BTU/scf and the flare tip velocity requirements of 40 CFR 63.670(d) do not apply.

(2) Each stage that cross-lights must have at least two pilots with a continuously lit pilot flame.

(3) The operator of the DCU MPGF system shall install and operate pressure monitor(s) on the main flare header, as well as a valve position indicator monitoring system capable of monitoring and recording the position for each staging valve to ensure that the flare operates at normal maximum operating pressure of 15 pounds per square inch gauge as described in the AMEL application. The pressure monitor shall meet the requirements in Table 13 of 40 CFR 63, subpart CC.

(a) The owner or operator of the Shell Martinez DCU MPGF shall meet the reporting requirements in the Petroleum Refinery MACT in 40 CFR 63.655(g)(11)(i)–(iii). In addition, the Shell Martinez MPGF notification shall also include records specified in section (i)–(ii) below.

(i) Records of when the pressure monitor(s) on the main flare header show the flare burners are operating outside the range of tested conditions or outside the range of the manufacturer's specifications. Indicate the date and time for each period, the pressure measurement, the stage(s) and number of flare burners affected, and the range of tested conditions or manufacturer's specifications.

(ii) Records of when the staging valve position indicator monitoring system indicates that a stage of the flare should not be in operation and is, or that a stage of the flare should be in operation and is not. Indicate the date and time for each such period, whether the stage was supposed to be open but was closed, or vice versa, and the stage(s) and number of flare burners affected.

IV. Request for Comments

The EPA is soliciting comments on all aspects of the Shell Martinez request for approval of an AMEL for a DCU MPGF to be used to comply with the standards. The EPA specifically seeks comment regarding whether or not the alternative operating conditions of $NHV_{cz} \geq 800$ BTU/scf discussed in section III above will achieve the combustion efficiency and/or destruction efficiency required at 40 CFR 63.670(r).

Dated: March 6, 2019.

Panagiotis Tsirigotis, Director,
Office of Air Quality Planning and Standards.