



DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG-2011-1089]

Cooperative Research and Development Agreement: Usage of Biodiesel Fuel Blends within Marine Inboard Engines

AGENCY: Coast Guard, DHS.

ACTION: Notice of intent; request for public comments.

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SUMMARY: The Coast Guard announces its intent to enter into a Cooperative Research and Development Agreement (CRADA) with Cummins, Inc., to identify and investigate the advantages, disadvantages, required technology enhancements, performance, costs, and other issues associated with using biodiesel fuel blends in marine inboard engines, with the overarching goal of reducing their Greenhouse Gas (GHG) emissions (i.e., lower carbon footprints). The Coast Guard invites public comment on the proposed CRADA and also invites other non-Federal participants, who have the interest and capability to bring similar contributions to this type of research, to consider entry into similar CRADAs.

DATES: Comments and related material on the proposed CRADA must either be submitted to our online docket via

<http://www.regulations.gov> on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN FEDERAL REGISTER], or reach the Docket Management Facility by that date. Proposals from parties interested in participating as a non-Federal participant in a CRADA similar to the one described in this notice (investigating the use of biodiesel fuel blends in marine inboard engines) must reach the Docket Management Facility on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may submit written comments identified by docket number USCG-2011-1089 using any one of the following methods:

- (1) Federal eRulemaking Portal:

<http://www.regulations.gov>.

- (2) Fax: 202-493-2251.

- (3) Mail: Docket Management Facility (M-30), U.S. Department of Transportation, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- (4) Hand delivery: Same as mail address above, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The telephone number is 202-366-9329.

To avoid duplication, please use only one of these four methods. See the "Public Participation and Request for

Comments" portion of the SUPPLEMENTARY INFORMATION section below for instructions on submitting comments.

Do not submit detailed proposals for future CRADAs to the Docket Management Facility. Potential, non-Federal CRADA participants should submit these documents to Mr. Richard Hansen, United States Coast Guard Research and Development Center; 1 Chelsea Street, New London, CT 06320, telephone: 860-271-2866; e-mail: [Rich.L.Hansen@uscg.mil](mailto:Rich.L.Hansen@uscg.mil).

FOR FURTHER INFORMATION CONTACT: If you have questions concerning this notice or desire to submit a CRADA proposal, please contact Mr. Richard Hansen, United States Coast Guard Research and Development Center; 1 Chelsea Street, New London, CT 06320, telephone: 860-271-2866; e-mail: [Rich.L.Hansen@uscg.mil](mailto:Rich.L.Hansen@uscg.mil).

If you have questions on viewing or submitting material to the docket, call Ms. Renee V. Wright, Program Manager, Docket Operations, telephone 202-366-9826.

SUPPLEMENTARY INFORMATION:

Public Participation and Request for Comments

We encourage you to submit comments and related material on this notice. All comments received will be posted, without change, to <http://www.regulations.gov> and will include any personal information you have provided.

### Submitting comments

If you submit a comment, please include the docket number for this notice (USCG-2011-1089) and provide a reason for each suggestion or recommendation. You may submit your comments and material online (via <http://www.regulations.gov>), or by fax, mail or hand delivery, but please use only one of these means. If you submit a comment online via [www.regulations.gov](http://www.regulations.gov), it will be considered received by the Coast Guard when you successfully transmit the comment. If you fax, hand deliver, or mail your comment, it will be considered as having been received by the Coast Guard when it is received at the Docket Management Facility. We recommend that you include your name and a mailing address, an e-mail address, or a telephone number in the body of your document so that we can contact you if we have questions regarding your submission.

To submit your comment online, go to <http://www.regulations.gov> and type "USCG-2011-1089" in the "Keyword" box. If you submit your comments by mail or hand delivery, submit them in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. If you submit them by mail and would like to know that they reached the Facility, please enclose a stamped,

self-addressed postcard or envelope. We will consider all comments and material received during the comment period.

#### Viewing Comments and Related Material

To view the comments and related material, go to <http://www.regulations.gov>, click on the "read comments" box, which will then become highlighted in blue. In the "Keyword" box insert "USCG-2011-1089" and click "Search." Click the "Open Docket Folder" in the "Actions" column. If you do not have access to the internet, you may view the docket online by visiting the Docket Management Facility in Room W12-140 on the ground floor of the Department of Transportation West Building, 1200 New Jersey Avenue SE, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. We have an agreement with the Department of Transportation to use the Docket Management Facility.

#### Privacy Act

Anyone can search the electronic form of comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review a Privacy Act, system of records notice regarding our public dockets in the January 17, 2008, issue of the Federal Register (73 FR 3316).

## Cooperative Research and Development Agreements

Cooperative Research and Development Agreements are authorized by the Federal Technology Transfer Act of 1986 (Public Law 99-502, codified at 15 U.S.C. 3710(a)). A CRADA promotes the transfer of technology to the private sector for commercial use as well as specified research or development efforts that are consistent with the mission of the Federal parties to the CRADA. The Federal party or parties agree with one or more non-Federal parties to share research resources, but the Federal party does not contribute funding. The Department of Homeland Security (DHS), as an executive agency under 5 U.S.C. 105, is a Federal agency for purposes of 15 U.S.C. 3710(a) and may enter into a CRADA. DHS delegated its authority to the Commandant of the Coast Guard (see DHS Delegation No. 0160.1, para. 2.B(34)), and the Commandant has delegated his authority to the Coast Guard's Research and Development Center (R&DC).

CRADAs are not procurement contracts. Care is taken to ensure that CRADAs are not used to circumvent the contracting process. CRADAs have a specific purpose and should not be confused with other types of agreements such as procurement contracts, grants, and cooperative agreements.

## Goal of Proposed CRADA

Under the proposed CRADA, the Coast Guard's R&DC would collaborate with non-Federal participants. Together, the R&DC and the non-Federal participants would identify and investigate the advantages, disadvantages, required technology enhancements, performance, costs, and other issues associated with using biodiesel fuel blends within marine inboard engines. Presently available information suggests that biodiesel (Fatty Acid Methyl Ester (FAME)) fuel produced from renewable sources has the potential to reduce the Coast Guard's boat forces carbon footprint while also reducing risks to their operational readiness. Biodiesel is widely available around the country. Several States are phasing in requirements or incentives to provide a biodiesel blend containing conventional diesel for retail sale. As a result, the R&DC has concluded that biodiesel warrants further investigation as an alternative fuel.

The R&DC, with the non-Federal participants, will create and employ a structured and collaborative test protocol to better understand the potential of biodiesel fuel blends within marine inboard engines. The non-Federal participants will investigate the use of at least one mutually agreed upon biodiesel fuel blend in representative inboard engines, via a sequential process that includes

modifications to engine and fuel systems components to ensure compatibility with the biodiesel fuel, followed by controlled field tests, and finally longer-duration operational testing on actual Coast Guard boats.

#### Party Contributions

We anticipate that the Coast Guard's contributions under the proposed CRADA will include the following:

(1) Obtain, transport, and provide temporary storage for the selected biodiesel fuel blend required for the work to be accomplished under the CRADA;

(2) Lead the development of the test objectives and test plan for the specific work to be accomplished under the CRADA;

(3) Provide all required resources, and conduct the "field testing" analysis of the representative inboard engines using the selected biodiesel fuel blend, in accordance with the CRADA test plan;

(4) Provide all required resources, and conduct the "operational testing" analysis of representative inboard engines using the selected biodiesel fuel blend, in accordance with the CRADA test plan; and

(5) Develop the CRADA Final Report, which documents the methodologies, findings, conclusions, and recommendations of this CRADA work.

We anticipate that the non-Federal participants' contributions under the proposed CRADA will include the following:

(1) Provide input into the Coast Guard selection of the biodiesel fuel blend to be used during this CRADA investigation;

(2) Provide input into the Coast Guard-developed, CRADA test objectives and CRADA test plan;

(3) Provide replacement components for the field and operational testing;

(4) Provide recommendations to the R&DC for engine and fuel system modifications, such as fuel oil heaters and filters;

(5) Document the modifications and recommendations in an interim CRADA report;

(6) Provide inboard engine operation and performance monitoring support to the Coast Guard during the "field testing" analysis; and

(7) Provide input into the Coast Guard-developed, CRADA Final Report.

#### Selection Criteria

The Coast Guard reserves the right to select for CRADA participants all, some, or none of the proposals in response to this notice. The Coast Guard will provide no

funding for reimbursement of proposal development costs. Proposals (or any other material) submitted in response to this notice will not be returned. Proposals submitted are expected to be unclassified and have no more than four single-sided pages (excluding cover page and resumes). The Coast Guard will select proposals at its sole discretion on the basis of:

(1) How well they communicate an understanding of, and ability to meet, the proposed CRADA's goal; and

(2) How well they address the following criteria:

(a) Technical capability to support the non-Federal party contributions described; and

(b) Resources available for supporting the non-Federal party contributions described.

Currently, the Coast Guard is considering Cummins, Inc., for participation in this CRADA. This consideration is based on the fact that Cummins, Inc.'s engines power Coast Guard boats in the 49-foot Buoy Utility Stern Loading (BUSL) class, which support the Short Range Aids to Navigation Mission. By virtue of the type of mission and number of boats in the class, the BUSL is considered the best candidate test platform; however, the Coast Guard does not wish to exclude other viable participants from similar CRADAs.

This is a technology transfer/development effort. Presently, the Coast Guard has no plan to procure inboard engines that operate on biodiesel fuel blends. Since the goal of this CRADA is "to identify and investigate the advantages, disadvantages, required technology enhancements, performance, costs, and other issues associated with using biodiesel fuel blends in marine inboard engines, with the overarching goal of reducing their Greenhouse Gas (GHG) emissions (i.e. lower carbon footprints)," and not to set future Coast Guard acquisition requirements for same, non-Federal CRADA partners will not be excluded from any future Coast Guard procurements based solely on their participation within this CRADA.

Special consideration will be given to small business firms/consortia, and preference will be given to business units located in the U.S.

Authority

This notice is issued under the authority of 15 U.S.C. 3710(a), 5 U.S.C. 552(a), and 33 CFR 1.05-1.

Dated: December 6, 2011

Alan N. Arsenault, CAPT, USCG  
Commanding Officer  
U.S. Coast Guard Research and Development Center

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