UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT 0 6 2008

OFFICE OF
AIR AND RADIATION

Mr. David Johnson
ESW Canada
335 Connie Cres
Concord, Ontario, Canada L4K 5R2

Dear Mr. Johnson:

The U.S. Environmental Protection Agency (EPA) has reviewed your request for placement of ESW Canada's (ESW's) XtrmCat™ DOC Kit retrofit system on the National Clean Diesel Campaign's Emerging Technologies List. The XtrmCat™ DOC Kit consists of a unique diesel oxidation catalyst (DOC) and crankcase emission control system for 2-stroke marine engine applications. Based on our evaluation of the application and the test plan, EPA has determined the XtrmCat™ DOC Kit meets the requirements of the Diesel Emission Reduction Program Provisions under the Energy Policy Act of 2005 to qualify as an emerging technology. Effective from the date of this letter, the XtrmCat™ DOC Kit will qualify as an emerging technology for one year with a possible extension of an additional year. For more information on the general requirements of an emerging technology, please see Attachment A.

Based on EPA's review of the information and data provided, your technology is approved for use in Emerging Technology applications on the following categories of engines provided all of the required operating criteria are met as described below:

Marine, 2-stroke cycle, Tier 0 and Tier 1, Turbocharged EMD 645E3-E7 and 710GT models originally equipped with crankcase emissions vented into the exhaust and equipped with a crankcase pressure monitoring system and manufactured in 2006 and earlier model years.

The projected emission reduction levels for this technology, based on the information and data provided by the manufacturer, are listed in the table below. The assigned emission reduction levels may be adjusted based on the results of verification testing.

Technology	Particulate Matter (PM) %	Carbon Monoxide (CO) %	Hydrocarbons (HC) %	Oxide of Nitrogen (NOx) %
XtrmCat™ DOC Kit including a DOC and CCV system	25	70	25	0

The following operating criteria must be met in order for appropriately retrofitted engines to achieve the aforementioned emission reductions.

1) Must be operated on ULSD fuel (15 ppm).
2) ESW will review vessel operating conditions, installation requirements and engine condition prior to installation.
3) The engine must be originally manufactured and equipped with crankcase emissions vented into the exhaust and equipped with a crankcase pressure monitoring system. Each installation will maintain a crankcase pressure monitoring system on the engine, and shut down the engine if crankcase pressure exceeds manufacturer specifications.
4) Crankcase filter replacement is required every 2000 hours or earlier if the indicator is activated.
5) The engine should be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer.
6) Blending of lube oil with fuel is prohibited with this product

Prior to verification testing, ESW is required to provide data logging results and detailed operating records from in-use vessels to demonstrate appropriate operation of this kit.

The primary goal of the Emerging Technology program is to support early deployment of new technologies that will reduce diesel emissions from the existing fleet. This program provides an opportunity for manufacturers to obtain feedback from fleet partners on their technology while it is in-use. In addition, manufacturers are expected to pursue full EPA verification during the time frame their technology is on the Emerging Technology List.

Thank you for participating in EPA's National Clean Diesel Campaign. If you have any questions or comments, please contact Dennis Johnson, of my staff, at (202) 343-9278.

Sincerely,

Jim Blubaugh, Manager
Innovative Strategies Group
Office of Transportation and Air Quality

Attachment A

The following criterion outlines the general requirements for technologies included on EPA's National Clean Diesel Campaign's Emerging Technologies List:

- The amount of time a technology may remain on the Emerging Technology List is 1 year.
- If a technology is fully verified within the first year, the technology will be added to the EPA Verified Technology List.
- A manufacturer may request an extension of up to one year to remain on the Emerging Technology List provided that the manufacturer has demonstrated to EPA it is pursuing full verification.
- If after the first year the technology has not been verified, EPA will review the status of the technology and determine if the technology qualifies for a second year. (Note: If it appears that the manufacturer has not made a significant attempt to complete verification and testing, the technology may NOT qualify for the second year).
- Once a technology is selected for use in an Emerging Technology project, that technology may be used for the entire project period even if the technology has been fully verified by EPA.
- Because an Emerging Technology is in the verification process, EPA may continue to evaluate the product, operation, and its impacts on emissions.
- Should EPA determine an Emerging Technology was misrepresented in the application, performance was not fully described, or because of concerns for safety and/or public health, at EPA's discretion, EPA may remove a technology from the Emerging Technology List, revise operating criteria, or impose other restrictions for use in Emerging Technology grant programs.
- Should a technology be removed from the Emerging Technology List without receiving verification status, that technology is no longer eligible for use on any Clean Diesel grant programs.
- The manufacturer or an authorized representative must install the technology as described to EPA and in accordance with the criteria described in the approval letter.
- Upon request, manufacturers must provide information to EPA on the installation, operation, and performance of Emerging Technologies used in Clean Diesel Grant programs.

Posting on the Emerging Technology List does not relieve the manufacturer from providing additional technical information and data to EPA. The manufacturer is expected to provide technical information upon request and to continue working with EPA and/or the California Air Resources Board (ARB) to complete the verification process.