Public Comment Period

DEPARTMENT OF ECOLOGY
State of Washington

Industrial Section **January 2009**

PROPOSED VARIANCE FROM CLASSIFICATION AS A SOLID WASTE FOR REFINERY CATALYSTS

NOTICE OF PUBLIC COMMENT PERIOD

The Washington State Department of Ecology (Ecology) seeks public comment on a proposed variance from classifying a material being recycled, as solid waste. The recycled material is spent catalysts generated in the petroleum refining process.

The proposed variance promotes the recovery and reuse of valuable resources and provide significant source reduction and waste minimization of polyaromatic hydrocarbons (PAHs).

Four Washington State refineries potentially qualify for this variance:

- BP Cherry Point Refinery, Ferndale
- ConocoPhillips Ferndale Refinery
- Shell Puget Sound Refinery, Anacortes
- Tesoro Anacortes Refinery, Anacortes

Background

State and federal regulatory activities in the past five years drove down sulfur requirements in conventional fuels to improve air quality. To meet the lower sulfur requirements, the petroleum refining industry has been required to significantly increase the performance of its crude oil treatment processes. A refinery hydroprocessing reactor uses metal (cobalt, nickel, molybdenum, and palladium) catalysts to remove sulfur from crude oil. The metals from the spent catalysts can be recovered and reused.

PUBLIC COMMENT PERIOD DATES AND LOCATIONS

January 21, 2009 - February 20, 2009

Send written comments to:

Kim Wigfield
Department of Ecology
Industrial Section
PO Box 47706
Olympia WA 98504-7600
e-mail: kand461@ecy.wa.gov

Read CDTECH's Request for Variance and a fact sheet at the following locations:

Anacortes Public Library
1209 Ninth Street
Anacortes, WA 98221

Bellingham City Library
210 Central Avenue
Bellingham, WA 98225

Ferndale Public Library
222 Main Street
Ferndale, WA 98248

Industrial Section
Department of Ecology
300 Desmond Drive
Lacey, WA 98503

If you need this publication in an alternate format, please call the Solid Waste & Financial Assistance Program at (360) 407-6916. Persons with hearing loss may call 711 for the Washington Relay Service. Persons with a speech disability can call (877) 833-6341.

Catalytic Distillation Technologies (CDTECH) has developed catalyst modules (CD Modules®) that consist of a stainless steel mesh shell containing catalyst particles. Individual modules are stacked together in the hydroprocessing reactor. Prior to removal from the reactor, the spent catalysts contained within the CD Modules® are partially reclaimed through deactivation and hydrocarbon removal. The initial reclamation process involves controlled oxidation until the catalysts no longer exhibit any self-heating properties.

Subsequent reclamation of the CD Modules® involves separating the partially reclaimed spent catalysts from the stainless steel mesh shell. The stainless steel and spent catalysts are then shipped to primary metals recovery and refining industries that utilize the reclaimed materials to manufacture a variety of products.

In addition to metals recovery and reuse, the CDTECH application is also considered source reduction and waste minimization. The catalysts in the CD Modules® last longer before needing to be changed out -- 7 years instead of 2 years using conventional technologies. As a result, significantly less PAH-containing wastes are generated.

Variance

In accordance with Washington State Dangerous Waste Regulations [WAC 173-303-017(5)] CDTECH has requested a variance from classification as a solid waste for the CD Modules®. This regulation allows Ecology to grant a variance for any materials that have been reclaimed but must be reclaimed further before the materials are completely recovered.

Based upon a review of the information submitted by CDTECH, Ecology has tentatively determined to issue a variance to individual petroleum refineries. This variance will be material-specific and issued on a case-by-case basis. Qualifying refineries must have a licensing agreement with CDTECH to use CD Modules® and agree to follow prescribed deactivation procedures.

Public Comment

Ecology invites you to read and comment on the proposed variance. Copies of CDTECH's Request for Variance are located at the:

- Anacortes Public Library
- Bellingham City Library
- Ferndale Public Library
- Department of Ecology in Lacey, Washington

Submit written comments by 5:00 p.m. on February 20, 2009. Contact Kim Wigfield at (360) 407-6931 if you have questions.

After the public comment period ends, Ecology reviews comments received and prepares a summary of the comments. Ecology makes a written response to these comments, called a Responsiveness Summary, available for public review. Ecology provides any change to its decision to issue a variance to those who submit comments or who ask for inclusion on the facilities mailing list.