

PMC-EF2a

(2.04.02)

U.S. DEPARTMENT OF ENERGY
EERE PROJECT MANAGEMENT CENTER
NEPA DETERMINATION



RECIPIENT: WA Dept. of Commerce

STATE: WA

PROJECT
TITLE : GR Silicate

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000052	DE-EE0000139		0

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:

Description:

B5.1 Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.

Rational for determination:

The Washington Department of Commerce will provide \$1,400,000 in Recovery Act funds to G.R. Silicate in support of the company's plans to expand their Nano-fibers and Carbonates operations to commercial scale. The G.R. Silicate facility is located at its Grays Harbor Paper site in Hoquiam, Washington.

The G.R. Silicate facility was originally built using funds from DOE grant number DE-FC36-0131D14439. Current operations consist of a diatomaceous earth slurry tank; a lime slaking/slurry tank; a 5,000 gallon, 200 psig reactor; a product screening system; and product storage. The reactor is capable of producing batches of Scaleno-hedral Precipitated Calcium Carbonate (S-PCC) and certain silicate nano-fiber products. A number of the silicate nano-fiber products require higher temperature and pressure than the current reactor rating, and thus cannot currently be produced outside of the laboratory. The current single reactor system also cannot produce sufficient quantities for continuous production runs and cannot take advantage of potential energy (heat) recovery opportunities.

Recovery Act funding will be used to add two more reactors that are capable of producing silicate nano-fibers at 600 psig and 500°F in quantities suitable for continuous paper production at the Grays Harbor Paper mill. The existing reactor will be dedicated to production of S-PCC only. The CO₂ source for the S-PCC production will be changed from using liquid CO₂ to using CO₂ from the No. 8 Hog Fuel Boiler flue gas. According to the recipient, this will remove approximately 7,329 tons per year of CO₂ from the boiler emissions, captured as calcium carbonate.

The proposed project received a SEPA Determination of Non-Significance on April 8, 2010. The Washington Department of Archaeology and Historic Preservation has concurred that no historic properties would be affected by the project. The project site is not located in a floodplain. The project also has a Notice of Construction – Final Determination to Approve from the Olympic Region Clean Air Agency, dated January 25, 2010. The Final Determination to Approve includes conditions of approval that must be met by G.R. Silicate, which include:

- Technical specifications
- Lime receiver/filter opacity limit
- Lime silo baghouse opacity limit
- Diatomaceous earth dust collector opacity limit
- Monitoring requirements
- Operation plan
- Recordkeeping requirements

Based on the information provided above, the work outlined is consistent with activities identified in Categorical Exclusion B.1.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Insert the following language in the award:

You are required to:

Comply with the conditions for approval in the Notice of Construction – Final Determination to Approve from the Olympic Region Clean Air Agency, dated January 25, 2010.

Note to Specialist :

According to the project officer, funding for this project is \$1,400,000. Unless there is a significant change in the scope of this effort, a change in funding will not affect my determination.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

NEPA Compliance Officer

Date: _____

5/26/10

FIELD OFFICE MANAGER DETERMINATION

Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:

- Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
- Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____

Field Office Manager

Date: _____