

PMC-EF2a

(2.0402)

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

**RECIPIENT:** Alaska Housing Finance Corporation**STATE:** AK**PROJECT TITLE :** Johnson Youth Center Renovation

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000052	DE-EE0000217	GFO-0000217-002	GO10337

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:

Alaska proposes to allow the Johnson Youth Center to use \$619,000 of its SEP funds to purchase associated equipment and install a 38 ton Ground Source Heat Pump (GSHP). The GSHP would be installed at the Johnson Youth Center Core Building located at 3252 Hospital Drive, Juneau AK.

The Johnson Youth Center was a state prison in the 1980's and has been a juvenile detention center since the 1990's. The Center's main building is a single story structure with mechanical lofts. The Center is currently being renovated and expanded and the final building will be 13,100 sf with a renovated area of 5200 sf and new construction of 7900 sf. However, DOE funding will only be utilized for the proposed GSHP.

The GSHP would be 21 separate heat pump units utilizing a common ground source system. The GSHP would be a closed loop vertical system with 24 wells with 15 ft spacing and wells would be drilled to approximately 350 ft depth. The wells would be grouted from the bottom up with bentonite.

The total area of the well field would be approximately 7400 sq ft and would be in a previously disturbed cleared lawn area within the facilities secure perimeter fence. The system will use a 30% glycol-70% water Propylene Glycol anti-freeze solution. The piping will be HDPE SDR 11 meeting ASTM 3035 and a glycol fill station will have a low level sensor connected to the Building DDC Controls with an alarm. A pair of test wells were drilled and evaluated for thermal conductivity; these test wells would be incorporated in the final well field array. The aquifer is not used for drinking water and there are no known water wells in area.

The project proponent has received a determination of no adverse effects to historic or cultural resources from the State Historic Preservation Officer. DOE has determined that this project will not adversely effect any threatened or endangered species.

The proposed project is consistent with "[a]ctions to conserve energy." DOE has determined that the proposed project is categorically excluded from further NEPA review under DOE CX B5.1.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer

identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Note to Specialist :

Melissa Rossiter
Market Title: State Facility Energy Efficiency Projects
DOE Funds: \$619,000.00

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____



NEPA Compliance Officer

Date: _____

9/9/11

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: _____