

PMC-EF2a

(20102)

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



RECIPIENT: Missouri DNR, Division of Energy

STATE: MO

PROJECT TITLE : MO - IEEP: Mallinckrodt - Plant-wide Chiller System Retrofit and Upgrades

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-000052	EE0000131	GFO-0000131-015	EE131

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 Missouri Department of Natural Resources proposes to provide \$500,000 of SEP funds to Mallinckrodt/Covidien (Mallinckrodt) for a plant-wide chiller system retrofit and upgrades at their existing facility at 3600 North 2nd Street, in St. Louis, MO. Mallinckrodt's facility is an industrial complex that was formerly utilized for production of radioactive materials for the Manhattan Project. The site has been fully remediated by the U.S. Army Corps of Engineers (USACE) under the Formerly Utilized Sites Remediation Action Project (FUSRAP) program, and the USACE reports that there are no restrictions on its use. The Post-Redial Action Report is attached in the PMC.

Mallinckrodt will replace eight (8) inefficient chillers with two (2) 750-ton chillers with VFD's. The overall scope of the project would include installing the following:

- * Two (2) 750-ton chillers with VFD's
- * Two (2) 750-ton cooling towers
- * Three (3) condenser water pumps
- * Three (3) primary chilled water pumps
- * Three (3) secondary chilled water pumps
- * Ancillary equipment required for the operation of the chilled water system

The new equipment will be installed in a new Central Chilled Water/Energy Plant, which is not a part of the DOE funded scope of work.

The new plant will increase operating efficiency of the steam plant from 75% to almost 90%. In addition, the existing coal fired boiler will be decommissioned. It is estimated that 17,953,032 kWh will be saved with just the installation of 1,000 tons of chilled water capacity and the overall scope will install 1,500 tons.

Since this project includes only equipment upgrades there will be no new disturbance and no impacts to biological resources are expected.

Air Emissions

Mallinckrodt estimated a reduction of 2,091 metric tons of green house gases and a new air permit is not needed. Mallinckrodt's estimates are attached in the PMC.

Waste Stream

The waste stream generated from this project will include two old chillers, associated refrigerant and piping.

The centrifugal chiller operates with R-113 refrigerant. The chiller has a capacity of approximately 800 pounds. The refrigerant will be removed by a qualified service mechanic and disposed of through Mallinckrodt's hazardous waste hauler, Heritage Environmental. The rest of the unit contains no other hazardous materials and will be cut up and sent out as scrap material.

The absorption chiller operates on a lithium bromide salt solution. Mallinckrodt has a permit from the Metropolitan St. Louis Sewer District to discharge the salt solution directly to their wastewater. The rest of the chiller contains no hazardous materials and will be cut up and sent off as scrap material. The waste stream plan is attached in the PMC.

SHPO

This project falls under the Programmatic Agreement between the Missouri DNR- Division of Energy, the Missouri SHPO and the US Dept of Energy and is categorically exempt from further review because the equipment would be installed in a new building. The PA is attached in the PMC.

DOE has reviewed the information for the proposed project and determined that this project does not pose a significant impact to human health or the environment. Therefore, this project is Categorically Excluded under B5.1 "Actions to Conserve Energy".

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

Prepared by Chris Paulsen

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:



NEPA Compliance Officer

Date:

6/3/11

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:
