U. S. Department of Energy

Finding of No Significant Impact
Cooperative Gypsy Moth Project For Illinois 2002

AGENCY: **U. S. Department of Energy**

ACTION: **Finding of No Significant Impact (FONSI)**

SUMMARY: The Department of Energy (DOE), after its own review, has adopted an Environmental Assessment (EA) DOE/EA-1433, prepared by the Illinois Department of Agriculture (IDOA) and the U.S. Department of Agriculture Forest Service (USDA-FS). The EA evaluates treatment of approximately 29,800 acres in northeast Illinois for gypsy moth infestations. The EA tiers off the *Gypsy Moth Management in the United States: a cooperative approach, Final Environmental Impact Statement (FEIS)* that the USDA issued in 1995.

DOE's involvement is limited to permitting up to 700 acres at Argonne National Laboratory-East (ANL-E), a DOE facility, to be treated for gypsy moth infestation. ANL-E is located in Argonne, Illinois. Based on the analysis in the EA, DOE has determined that treatment at ANL-E does not constitute a major federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act of 1969 (NEPA). Therefore, the preparation of an Environmental Impact Statement is not required.

DESCRIPTION OF THE PROPOSED ACTION: The proposed action would be to authorize the IDOA and USDA-FS to implement the USDA-FS "Slow-the-Spread" gypsy moth treatment program at ANL-E. The treatment would entail two applications by helicopter in May 2002 of *Bacillus thuringiensis* var. *'kurstaki'* (Btk) to wooded areas in the eastern portion of ANL-E. Btk is a bacterium that produces a toxin specific to butterfly and moth caterpillers.

ALTERNATIVES: In addition to the proposed action, the EA considered the no action alternative. Under the no action alternative, gypsy moth infested areas at ANL-E would not be treated with Btk.

ENVIRONMENTAL IMPACTS: Impacts of the proposed gypsy moth treatment were analyzed in the EA. The finding of no significant impact for the proposed action is based on the following factors that are supported by information and analysis in the EA.

Cultural Resource Impacts: DOE would not expect implementation of the proposed action to affect cultural resources at ANL-E. Although two archaeological sites and one historic district

are located in the vicinity of the mitigation site, activities associated with the proposed action would not affect those resources.

Ecological Resource Impacts: The proposed action could have minor short-term impacts on non-target species but would delay and mitigate long-term adverse ecological impacts from the unmanaged introduction of gypsy moths to Illinois. Since the proposed action would be limited to pockets of gypsy moth infestation, surrounding populations of non-target species would be sufficiently vibrant to repopulate the treated areas.

Adverse impacts to state- or Federally-listed threatened or endangered species would not be expected at ANL-E. No Federally-listed species occur at ANL-E. State-listed species that could occur at ANL-E would not be affected by the proposed action.

Human Health and Safety Impacts: The toxin produced by Btk is specific to butterfly and moth caterpillars; it does not affect humans. Although exposure to commercial formulations of Btk could cause eye, skin, and respiratory irritation, no adverse effects to workers or the general public have been attributed to aerial spraying.

The USDA-FS and IDOA have determined in the EA that the most credible off-normal incident would be the crash of an aircraft. DOE accepts this determination. The EA reports that although the risk of occurrence for such an incident is low, such an event occurred in Michigan in 1989, resulting in pilot fatality. Assuming such an eventuality at Argonne National Laboratory, likely consequences would be negligible. Potential physical (i.e., trauma) injury to aircraft personnel would be the most likely and serious consequence. It is unlikely that Argonne site staff or visitors would be physically impacted since application will occur over the forested areas of the Laboratory and not over the areas where employees or visitors will be located. The "Work and Safety Plan" prepared by the UDSA FS and the IDOA identifies the Argonne Fire Department as the designated Emergency Responder for potential incidents at Argonne National Laboratory.

Spills from such an accident are also mentioned in the EA. The Materials Safety Data Sheet (MSDS) for Btk recommended that emergency response personnel who might expect higher exposures to the toxin wear protective clothing and self-contained breathing apparatus. It recommends that exposed persons flush their eyes and skin with "copious amounts of water". Environmental impacts would be expected to be minimal as Btk naturally attenuates rapidly in sunlight and moisture. The FEIS states that "in one report, after 63 days only 3% of the insecticide activity remained" although spores could exist somewhat longer. Environmental Emergency Response personal would follow established Argonne National Laboratory procedures, as well as applicable environmental regulations, in removing the contaminant from the environment. In one historical spill, the USDA-FS and IDOA report that Btk was quickly confined and cleaned up with no environmental contamination concerns resulting from the incident.

DETERMINATION: Based on the analysis in the EA, the DOE has determined that the proposed gypsy moth treatment at Argonne National Laboratory-East does not constitute a major federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act of 1969. Therefore, an Environmental Impact Statement on the Proposed Action is not required.

PUBLIC AVAILABILITY: Copies of the EA (DOE/EA-1433) are available from:

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