



Fermi National Accelerator Laboratory  
P.O.Box 500 • Batavia, IL • 60510-0500  
630-840-3211 FAX 630-840-2900

Director's Office

March 27, 2008

Dear Fermilab Neighbor:

On behalf of Fermi National Accelerator Laboratory, I am writing to let you know about an environmental assessment that we are conducting for a proposed physics experiment here at the laboratory. We feel it is important to keep our neighbors informed and to give you the opportunity for feedback.

Some of you are familiar with the NuMI/MINOS experiment that we have been conducting at Fermilab since March 2005. The experiment sends a beam of subatomic particles called neutrinos from Fermilab through the earth to a particle detector in northern Minnesota.

The proposed NOvA experiment would use the same method, only the neutrino beam would be about three times more powerful. The NOvA experiment, if approved, would answer basic questions about neutrinos, which are also produced and emitted by our sun. Neutrinos are a billion times more abundant in the universe than the ordinary matter that makes up stars, planets and people. The enclosed fact sheet provides more information on the NOvA experiment.

Because neutrinos have extremely weak interactions with ordinary matter, the neutrino beam will have no effect on the environment at Fermilab, along the beam line or in Minnesota. However, as with the MINOS experiment, the process of producing the beam does produce some tritium, a radionuclide, in a tunnel beneath the Fermilab site. Because the NOvA beam is more powerful, it will also produce more tritium.

From our experience with managing tritium from the MINOS experiment, we know that small amounts of tritium will reach surface waters at Fermilab at levels well below limits set by federal regulations. This will also be the case for the NOvA experiment. We will continue our commitment to manage tritium safely on the Fermilab site. We will continue to post the results from our tritium monitoring program on the Fermilab Web site, as we have done for the MINOS experiment.

The potential impacts of the NOvA experiment are documented in a Draft Environmental Assessment that is currently under review by the U.S. Department of Energy and the Illinois Environmental Protection Agency. Federal law requires an Environmental Assessment (EA) of any federally funded project that may have environmental impacts. The EA is a first step in assessing environmental concerns. If the Department of Energy finds that there is reason for concern, they will ask the laboratory to prepare a more detailed Environmental Impact Statement.

To read the draft of the EA, please go to <http://www.fnal.gov/pub/neighbors/> or visit the public libraries in Batavia or Warrenville. You also can find additional information about the MINOS and NOvA experiments, about tritium and about Fermilab's commitment to the environment at the Web site above.

As your neighbors, we want you to have accurate and complete information about all of our operations at Fermilab. If you have questions or concerns about NOvA, I hope you will call or email Judy Jackson (630-840-3351, [jjackson@fnal.gov](mailto:jjackson@fnal.gov)) in Fermilab's Office of Communication before Friday, April 25.

Sincerely,

A handwritten signature in black ink that reads "Piermaria Oddone". The signature is written in a cursive style with a horizontal line underneath.

Piermaria J. Oddone,  
Laboratory Director