

March 28, 2017

The Honorable Mike Simpson
Chairman, Subcommittee on Energy & Water
Development
U.S. House of Representatives
Committee on Appropriations
Washington, D.C. 20515

The Honorable Marcy Kaptur
Ranking Member, Subcommittee on Energy &
Water Development
U.S. House of Representatives
Committee on Appropriations
Washington, D.C. 20515

The Honorable Lamar Alexander
Chairman, Subcommittee on Energy & Water
Development
U.S. Senate Committee on Appropriations
Washington, D.C. 20510

The Honorable Dianne Feinstein
Ranking Member, Subcommittee on Energy &
Water Development
U.S. Senate Committee on Appropriations
Washington, D.C. 20510

Re: National Laboratories: Critical Partners for U.S. Manufacturing

Dear Chairman Simpson, Ranking Member Kaptur, Chairman Alexander and Ranking Member Feinstein:

As you review FY 2018 funding levels for the Department of Energy's Office of Science, I urge you to consider this real-world example of how one of the most popular building insulation products and all the jobs associated with that industry might not exist today if it were not for the applied research and development work performed by the Oak Ridge National Laboratory (ORNL).

The buildings we occupy as schools, hospitals, offices, and manufacturing plants all share one critical design element that provides shelter to the people that pass through their doors each day...a roof. Under more than 70% of the roofs that protect commercial buildings in this country is polyisocyanurate (polyiso) insulation.

Polyiso was originally developed in the 1970's as an insulation solution for the aerospace industry and was adopted by the construction industry in the 1980's as a popular rigid foam insulation for roofing. With its exceptional thermal properties and durability, polyiso continues to help businesses and local school districts lower the amount of energy needed to power their buildings and provide comfortable learning environments for students.

Like many industries, polyiso insulation is significantly different, and improved, from the first generations of products sold 30 years ago. The reasons for change are not novel – innovation, competition, market demands, and regulation. However, many would be surprised to learn that today's polyiso insulation (and the resulting jobs and societal benefits from its use) would not have been possible without the world class research facilities at ORNL.

In the early 1990's, the U.S. joined other countries under the Montreal Protocol to address the environmental consequences presented by the use of ozone depleting (ODP) substances. The blowing agent used in the manufacture of polyiso at that time was classified as an ODP substance. Blowing agents used in foam insulations are critical to the final product's desired performance attributes, including density (strength) and thermal performance. In the face of an extremely short deadline for ending its use of certain ODP chemicals, the polyiso industry was tasked to find a replacement blowing agent that provided equal or better performance. Failure to do so would have resulted in a steep federal tax on the blowing agent which could have spelled the end of our industry.

To complete this accelerated research, development and deployment, the polyiso industry together with partners from the roofing industry turned to ORNL for technical assistance. Under a cooperative agreement with the laboratory, the industry embarked on a multi-year research project buoyed by ORNL's reputation for best-in-class research and third-party impartiality. Guided by the expertise of ORNL researchers, and with assistance from the Department of Energy and the Environmental Protection Agency, the project was a success.

The result was a newly reformulated product that met the Montreal Protocol requirements and exceeded the market needs for a highly-effective thermal insulation. A decade after completing the initial research project, the polyiso industry again partnered with ORNL to completely remove the use of ODP substances from its insulation products. As a direct consequence of our country's decades long investments in national laboratories, today's polyiso industry is able to deliver highly efficient insulation products to the market without the negative impacts of ODP substances.

While our industry's partnership with a national laboratory produced exceptional results, it's hardly an exception to the successes of other industries. A quick review of the ORNL website reveals a list of success stories that explains why America is a country of innovation and leadership. From pioneering nuclear technology to housing some of the world's fastest supercomputers, the network of national laboratories are assets to U.S. manufacturers that provide a leg up in global competition. If we are serious about fostering a domestic manufacturing renaissance, leaders in Congress should be fierce advocates of funding for the national laboratories and other critical science programs at the Department of Energy.

The more than 30 polyiso manufacturing facilities spread across the U.S. and the many thousands of jobs created by the manufacture and installation of polyiso insulation are proof that federal investments in the sciences do unlock private sector innovation and economic growth. On behalf of the polyiso industry and U.S. manufacturing, I hope our story will be shared and used to support level funding for the Department of Energy's Office of Science.

Sincerely,



Justin Koscher
President

cc: The Honorable Bob Corker
The Honorable John J. Duncan, Jr.
The Honorable Chuck Fleischmann