

22 October 2012

The Honorable Carl Levin
United States Senate
Washington, DC 20510

Dear Senator Levin,

Thank you for your clear and direct statement regarding the future of the United States' nuclear stockpile—it is past time to abandon Cold War thinking and move toward a more secure future by building down our nuclear stockpile and entering constructive negotiations to encourage other countries to follow our lead.

Encouraged by your statement, we are asking you to take a close look at the National Nuclear Security Administration's proposal to accelerate construction of the Uranium Processing Facility in Oak Ridge, Tennessee. Any investment in nuclear weapons production infrastructure should adhere to three basic principles:

1. Investment should align with nuclear policy—the UPF is being designed with a production capacity of 80 warhead secondaries per year to accommodate future production of increased numbers of warhead secondaries rather than being sized to meet the mission requirements of a down-sizing stockpile.ⁱ

2. Congress should seek the most cost effective path to achieve mission requirements, making use of existing infrastructure where feasible and requiring rigorous accountability for funds expended. NNSA says it can fully meet stockpile mission requirements in existing facilities at Y12 in Oak Ridge which can be upgraded to meet environmental, safety and health requirements for less than \$200 million.ⁱⁱ

3. Congress should demonstrate a risk-averse approach to funding construction, requiring the Department of Energy/NNSA to follow best practices in the design basis process including early and thorough integration of safety, demonstration of technology readiness before committing the facility design to unproven technologies, and resisting pressure to accelerate funding which will compress the design/construction schedule, further bloating an already out of control budget for the UPF.

Rather than accelerating construction funding, construction funding should be constrained, and we are asking you, before you authorize any funds to begin building, to consider these facts:

- No credible cost estimate for the total price of the UPF has yet been prepared. The first cost estimate, a range of \$600 million - \$1.5 billion was unsupportable (the GAO said there was a 0% likelihood of constructing the facility for that amount). Unfortunately for the taxpayer, the GAO was right; the most recent cost estimates range up to \$7.5 billion and are equally unsupported by documentation, nor have they been subjected to a rigorous outside review as required by DOE Orders. According to UPF project director John Eschenberg, a firm cost estimate is not expected until September 2013.ⁱⁱⁱ So far the UPF is an extremely expensive pig in a poke.^{iv}
- More than half a billion dollars has been spent so far on the design basis for the UPF, but it has yet to achieve 90% design completion. At the October 2 DNFSB hearing in Knoxville, TN, the NNSA revealed their design team has realized it cannot fit all the required equipment in the

UPF as currently designed, necessitating a substantial redesign of the facility and pushing back the design completion date, further delaying the start of construction.

- The GAO has criticized NNSA for lack of fiscal oversight and management on major construction projects, specifically citing the UPF as an example. The GAO said oversight mechanisms should be put in place—to date, no such mechanisms have been established—and Congress should require responsibility and accountability before handing over money for construction.
- Accelerating construction of the UPF is likely to increase costs. According to Department of Energy guidance 413.3-5, schedule compression by crashing “usually results in higher total project costs,” and fast tracking “increases project risk and reworking resulting from technical uncertainties.”
- The GAO has noted six of ten new technologies being designed into the UPF will not be sufficiently mature to achieve Technology Readiness Level 6 before construction begins. The GAO points out the failure of these technologies might require an expensive redesign and a delay in project completion. The most mature of the ten technologies GAO examined, microwave casting, failed its first major trial last month, and key parts have been sent back for remanufacturing.
- The UPF is dramatically oversized. In 2011, the NNSA indicated it can meet mission requirements—stockpile surveillance, maintenance and limited life extension—with a production capacity of ten warheads/year. But the UPF is being designed with a production capacity of 80 warheads/year—a *sevenfold excess every year*. Overbuilding the UPF is irrational and unsupported in today’s economic climate—it is contrary to US policy, and sends a powerful and dangerous message to other nations.^v (NNSA argues right-sizing the UPF will save only 15% of the total cost, but with a likely total price tag in excess of \$8 billion, 15% saves the taxpayer more than a billion dollars.)
- The effort to push the UPF construction through the pipeline, even before acceleration, has already led to noncompliance with DOE Standards and Orders; the Defense Nuclear Facilities Safety Board questioned the decision to collapse Critical Decisions 2 and 3 into one Critical Decision 2/3 and, in the process, to bypass the preparation of a Preliminary Safety Design Report [PSDR]. Now, with the UPF design reportedly more than 75% complete, an acceptable PSDR has yet to be prepared (a draft prepared last year was rejected by NNSA), and the Safety Board says safety is not integrated into the UPF design, criticality protection features have been downgraded from current standards, and workers and the public are not sufficiently protected.

This remarkable list demonstrates that NNSA is nowhere near ready to begin building the UPF. Pushing \$340 million on the UPF project to accelerate construction will likely encourage further design and safety compromises, neither of which is acceptable. Even the DOE predicts it will likely increase costs and will certainly increase project risk.

Senator Levin, we appeal to you to bring common sense and fiscal responsibility to bear on the UPF project by refusing to authorize construction funding under these conditions. The UPF should be right-sized with a production capacity that reflects the diminishing need for

secondary production in a down-sized stockpile; safety should be integrated into the design process from the beginning as required by DOE; speculative technologies should meet DOE's best practices level of maturity before they are incorporated into the UPF design; a system of accountability for NNSA management and fiscal decisions should be put in place by Congress as per the GAO recommendations; and real numbers subject to an independent cost estimate should be required in place of "TBD" before Congress begins shoveling more money into the bottomless pit that is the UPF.

Thank you for your attention to our concerns. We will be happy to discuss these concerns further in any way that might be helpful.

Sincerely,

Katherine Fuchs
Program Director
Alliance for Nuclear Accountability
(NM/SC/DC)

Jessica Azulay
Organizer
Alliance for a Green Economy (NY)

Fr. Thomas Gumbleton
Bishop
Archdiocese of Detroit (MI)

Kevin Kamps
Radioactive Waste Watchdog
Beyond Nuclear (MD)

Louis Zeller
Executive Director
Blue Ridge Environmental Defense League
(NC)

Katie Heald
Coordinator
Campaign for a Nuclear Weapons Free World
(CA)

William Hartung
Director, Arms and Security Project
Center for International Policy (DC)

Barbara Warren
Executive Director
Citizens' Environmental Coalition (NY)

Colleen Mills
President
Citizens for Peace (MI)

Keith Gunter
Director
Citizens Resistance at Fermi Two (MI)

Michael Keegan
Chair
Coalition for a Nuclear Free Great Lakes (MI)

Bob Kinsey
Co-Chair
Colorado Coalition for the Prevention of
Nuclear War (CO)

Joni Arends
Executive Director
Concerned Citizens for Nuclear Safety (NM)

Fr. Tom Lumpkin
Coordinator
Day House – Detroit Catholic Worker (MI)

Billie Hickey
Co-Chair
Detroit Gesu Peace and Justice
Committee(MI)

Joanne Cromley
Co-Chair
Don't Frack Michigan (MI)

Alice Hirt
Co-Chair
Don't Waste Michigan (MI)

Lisa Crawford
President
Fernald Residents for Environmental Safety
& Health (OH)

David Culp
Legislative Representative
Friends Committee on National Legislation
(DC)

Randy Block
Convener
Gray Panthers of Metro Detroit (MI)

Joan Wile
Director
Grandmothers Against the War (NY)

Leonard Eiger
Outreach Coordinator
Ground Zero Center for Nonviolent Action
(WA)

Mali Lightfoot
Executive Director
Helen Caldicott Foundation (NC)

Mavis Belisle
Director
Just Peace (TX)

Kim Joy Bergier
Coordinator
Michigan Stop the Nuclear Bombs Campaign
(MI)

Ed Smith
Energy Director
Missouri Coalition for the Environment (MO)

Paul Olson
State Board Representative
Nebraskans for Peace (NE)

Christopher Paine
Nuclear Program Director
Natural Resources Defense Council (NY)

Donald Clark
United Nations Representative (TN)

Rev. Gilberto Perez
Nipponzan Myohoji Buddhist Sangha (WA)

Dave Kraft
Director
Nuclear Energy Information Service (IL)

Michael Mariotte
Executive Director
Nuclear Information Research Service (MD)

Jay Coghlan
Executive Director
Nuclear Watch New Mexico (NM)

Glenn Carroll
Coordinator
Nuclear Watch South (GA)

Bonnie Urfer
Co-Director
Nukewatch (WI)

Ralph Hutchison
Coordinator
Oak Ridge Environmental Peace Alliance
(TN)

Jerry Bettice
Coordinator
Pax Christi Memphis (TN)

Joan Tirak
Coordinator
Pax Christi Michigan (MI)

Paul Kawika Martin
Policy Director
Peace Action (MD)

Amelia Ramsey-Lefevre
Staff Organizer
Peace Action of Central New York (NY)

Keith Gunter
Co-Chair
Peace Action of Michigan (MI)

Alicia Godsberg
Executive Director
Peace Action New York State (NY)
John Heuer
Director
Peace Action North Carolina (NC)

Jon Rainwater
Executive Director
Peace Action West (CA)

Mary & Bill Carry
Coordinators
Peace and National Priorities Center of
Oakland County (MI)

Jerry Stein
Coordinator
Peace Farm (TX)

Catherine Thomasson
Executive Director
Physicians for Social Responsibility (DC)

Barbara Warren, MD, MPH
President
Physicians for Social Responsibility, Arizona
Chapter (AZ)

Ann Suellentrop, MSRN
Coordinator
Physicians for Social Responsibility, Kansas
City Chapter (MO)

Karen A D'Andrea
Executive Director
Physicians for Social Responsibility, Maine
Chapter (ME)

Abby Wear
Executive Director
Physicians for Social Responsibility, New
Mexico Chapter (NM)

Shannon Gearhart, MD, MPH
President
Physicians for Social Responsibility, New
York City Chapter (NY)

Harry Wang, MD
President
Physicians for Social Responsibility
Sacramento Chapter (CA)

Robert Gould, MD
President
Physicians for Social Responsibility, San
Francisco Bay Area Chapter (CA)

Terry Clark, MD
President
Physicians for Social Responsibility, Western
North Carolina Chapter (NC)

Leonard Eiger
Coordinator
Puget Sound Nuclear Weapon Free Zone
(WA)

Judith Mohling
Coordinator, Nuclear Nexus Project
Rocky Mountain Peace & Justice Center (CO)

Sarah Nash
Leadership Council Co-Coordinator
Sisters, Servants of the Immaculate Heart of
Mary (MI)

Liz Woodruff
Executive Director
Snake River Alliance (ID)

Don Hancock
Director, Nuclear Waste and Safety Program
Southwest Research and Information Center
(NM)

Karen Martin
Founder
Straits Area Concerned Citizens for Peace &
Justice (MI)

Marylia Kelley
Executive Director
Tri-Valley Communities Against a
Radioactive Environment (CA)

Rosalie Riegler
Convenor
War Resisters League, Chicago Chapter (IL)

Kathy Crandall-Robinson
Public Policy Director
Women's Action for New Directions (MA /
DC)

Bobbie Paul
Executive Director
Women's Action for New Directions – Georgia
(GA)

Fern Katz
Chairwoman
Women's Action for New Directions –
Southeast Michigan Chapter (MI)

Laura Dewey
Coordinator
Women's International League for Peace and
Freedom – Detroit Branch (MI)

ⁱ Explaining its decision to reject a smaller, No Net production UPF Alternative, NNSA wrote: "Under a No Net Production/Capability-sized UPF Alternative, NNSA would maintain the capability to conduct surveillance and produce and dismantle secondaries and cases. NNSA would reduce the production level of facilities to approximately 10 secondaries and cases per year, which would support surveillance and dismantlement operations and a limited Life Extension Program (LEP) workload; however, this alternative, would not support adding replacement or increased numbers of secondaries and cases to the stockpile." (Final Y12 Site Wide Environmental Impact Statement, Chapter 3, page 27).

ⁱⁱ The Y12 Ten Year Site Plan, published in March 2009 [*Y12 Ten Year Site Plan*, 2009, p. 19] says seismic, ventilation and other upgrades estimated at \$100 million to Building 9212 will keep the building operating safely. This number corresponds roughly to a 2007 table indexing current facilities [*Y12 Ten Year Site Plan*, 2007, p.61] which says total NNSA mission critical building deferred maintenance cost is \$121,528,000. The Ten Year Plan provides no comprehensive overview of what the upgrades will cover, but seismic and ventilation issues are regularly cited as the key justifications for the UPF.

ⁱⁱⁱ *Cost breakdown for UPF phases*, Frank Munger, Knoxville News-Sentinel, June 26, 2013. "Design of UPF is reported to be a little more than three-fourths complete, with a key 90 percent milestone expected this fall. However, Eschenberg said it'll be another year before the project's baseline is set and a firm cost estimate released. 'By September 2013, we will have a baseline for the UPF established,' he said."

^{iv} In its critique of NNSA's cost estimates, GAO noted one initial detailed estimate listed the number of pipes and fittings even though no preliminary designs had yet been prepared and it was impossible to estimate the extent of piping. When the numbers were sent up the chain, GAO said, NNSA added a billion dollars to the estimate with no documentation at all—just a sense that it would cost more than the estimate indicated. Even in the FY2012 budget submitted to Congress by President Obama, the outyear funding for UPF is "TBD," which appears to be NNSA-speak for "blank check."

^v In briefings on Capitol Hill in December 2010, Ambassador Robert Gray said extensive investment in modernizing US weapons production infrastructure would undermine US nonproliferation efforts globally. "We will have zero credibility," the Ambassador said.