

12. U.S. Organizations Active on Nuclear Issues (Part II: National Research Council, Think Tanks, Anti-Nuclear Groups, and Blue Ribbon Commission)

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Profile (January 2008)

Dr. Gail H. Marcus is presently an independent consultant on nuclear power technology and policy. She recently completed a three-year term as Deputy Director-General of the OECD Nuclear Energy Agency (NEA) in Paris. In this position, she was responsible for the program of work and budget for the agency. From 1999 through 2004, Dr. Marcus served as Principal Deputy Director of the Office of Nuclear Energy, Science and Technology. There she provided technical leadership for DOE's nuclear energy programs and facilities, including the development of next-generation nuclear power systems. Other responsibilities included production and distribution of isotopes for medical treatment, diagnosis and research, and oversight of DOE test and research reactors and related facilities and activities. From 1998-1999, Dr. Marcus spent a year in Japan as Visiting Professor in the Research Laboratory for Nuclear Reactors, Tokyo Institute of Technology. She conducted research on comparative nuclear regulatory policy in Japan and the United States.

Previously, Dr. Marcus had been in the US Nuclear Regulatory Commission (NRC). She served in a variety of positions including Deputy Executive Director of the Advisory Committee on Reactor Safeguards/Advisory Committee on Nuclear Waste; Director of Project Directorate III-3, providing regulatory oversight of seven nuclear power plants in the Midwest; and Director of the Advanced Reactors Project Directorate, where she was responsible for technical reviews of advanced reactor designs.

She also served as technical assistant to Commissioner Kenneth Rogers at the NRC for over four years, providing advice and recommendations on a broad range of technical and policy issues of interest to the Commission. From this position she was detailed for five months to Japan's Ministry of International Trade and Industry, where she was NRC's first assignee to Japan, studying Japan's licensing of the Advanced Boiling Water Reactor.

Prior to her service at NRC, Dr. Marcus was Assistant Chief of the Science Policy Research Division at the Congressional Research Service (1980-1985). In this position, she was responsible for policy analysis in support of Congress covering all fields of science and technology, and played a lead role in policy analysis and development for energy, nuclear power, and risk assessment and management.

Organization:

From 2001-2002, Dr. Marcus served as President of the American Nuclear Society (ANS), an 11,000 member professional society. She is a Fellow of the ANS and of the American Association for the Advancement of Science (AAAS). She is a former member of the National Research Council Committee on the Future Needs of Nuclear Engineering Education, and served three terms on the MIT Corporation Visiting Committee for the Nuclear Engineering Department. She is just completing a term as the elected Chair of the Engineering Section of AAAS.

Publication:

Dr. Marcus has authored numerous technical papers and publications. Her research interests include nuclear regulatory policy, energy technology and policy, risk assessment and management, international nuclear policy, and advanced nuclear technologies.

Education:

Dr. Marcus has an S.B. and S.M. in Physics, and an Sc.D. in Nuclear Engineering from MIT. She is the first woman to earn a doctorate in nuclear engineering in the United States.

This essay is the last essay for this series from the Marcus Room. It is a continuation of the previous essay on organizations in the United States that participate significantly in the dialogue on nuclear power. The previous essay covered some of the largest and most well known of these organizations, including U.S. government agencies, major industry organizations (the NEI, INPO and EPRI), and professional societies, including the ANS. In this essay, I will cover other types of organizations that have a role in the nuclear dialogue. These include the National Research Council, a number of “think tanks,” a couple of the more influential, national anti-nuclear organizations, and a special group chartered by the President that is currently active.

A Congressionally-Chartered Private Organization

Perhaps the most important organization I will cover in this essay is the [National Research Council](#). (The abbreviation, NRC, is identical to that of the Nuclear Regulatory Commission, which can result in some confusion, but the two organizations are totally separate.) The NRC functions under the auspices of the National Academy of Sciences (NAS), the National Academy of Engineering (NAE), and the Institute of Medicine (IOM). All four entities are part of a private, nonprofit institution that provides science, technology and health policy advice to the U.S. government under a congressional charter signed by President Abraham Lincoln that was originally granted to the NAS in 1863.

The mission of the NRC is to improve government decision-making and public policy, increase public education and understanding, and promote the acquisition and dissemination of knowledge in matters involving science, engineering, technology, and health. The NRC does not receive direct federal appropriations for its work. Instead, individual projects are funded by federal agencies, foundations, other governmental and private sources, and the institution’s endowment. The work is made possible by Academy members and other scientists and engineers who volunteer their time without compensation to serve on committees and participate in activities. The core services involve collecting, analyzing, and sharing information and knowledge. The independence of the institution, combined with its ability to convene experts, allows it to be responsive to requests in many areas. Like some of the organizations mentioned in the previous essay, its work is not exclusively nuclear, but it has covered many nuclear issues. I personally was a member of a panel a number of years ago that examined nuclear engineering education. While I

was at the Nuclear Regulatory Commission, the Commission requested the Council to conduct a study for them (which naturally became known as NRC-squared!). Their [current projects listing](#) shows that a review of DOE’s nuclear energy R&D program is presently underway.

“Think Tanks”

The category of “think tanks” is a bit fuzzy. Think tanks are generally considered to be organizations that conduct research and analysis in policy areas, such as social, political, economic, science, technology, industrial, or military policy. In the United States, such institutions are generally not-for-profit organizations. Because it is the “home” of the key policy makers in the United States, Washington, D.C. is also the home of a number of the most well-known and respected think tanks, including the [Brookings Institution](#), [Carnegie Endowment for International Peace](#), [Heritage Foundation](#), [Cato Institute](#), [American Enterprise Institute](#), and [Center for Strategic and International Studies \(CSIS\)](#). There are some influential think tanks outside the Washington area as well, for example, the [Hoover Institution](#). And there are think tanks that work in related areas, such as the [Institute for Science and International Security \(ISIS\)](#) which, in analyzing nuclear proliferation issues, covers fissile material stockpiles and controls.

All of these organizations address many policy areas, nuclear among them. Their work includes hosting seminars, publishing position papers, and engaging in other activities to promote dialogue on important public policy issues. Although some of these organizations characterize themselves as neutral politically, and some have shifted in their political leanings over time, several do have self-declared political leanings, or have acquired a reputation for favoring one side of the political spectrum or another. For example, although the Brookings Institution includes staff and Board members from both major political parties, it is often characterized as liberal leaning. Heritage Foundation and the American Enterprise Institute are considered conservative politically, and the Cato Institute currently characterizes itself as libertarian. The others are less associated with specific party interests. Naturally, those organizations whose positions align closely with those of one of the major political parties tend to have more influence over national policy when their party is in power.

Although all of these organizations have addressed nuclear issues, the question from a reader that sparked this essay and the last one was a re-

sult of a blog I did reporting on a [seminar program of the CSIS](#). While all the groups have seminars open to the public, the ones that I've had occasion to attend and report on recently are those of the CSIS.

Anti-nuclear groups

First, I am compelled to tackle the designation "anti-nuclear." It is a convenient shorthand for characterizing groups, but it tends to oversimplify the positions of some of these organizations. For example, perhaps the best known of these groups is the [Union of Concerned Scientists \(UCS\)](#). The UCS characterizes itself as "the leading science-based nonprofit working for a healthy environment and a safer world. UCS combines independent scientific research and citizen action to develop innovative, practical solutions and to secure responsible changes in government policy, corporate practices, and consumer choices." In the [nuclear area](#), the UCS says it monitors and works "to improve the safety and security provisions at existing nuclear power plants and the performance of the industry's oversight body--the Nuclear Regulatory Commission; assess the safety, security and nuclear weapons proliferation risks of new reactors; and analyze the pros and cons of increasing nuclear power as a means of reducing global warming. We write reports, file formal petitions to the NRC, testify before Congress, and provide technical assistance to groups of citizens living near nuclear plants." They do not say their mission is to shut down reactors or to prevent more from being built, and when the UCS examines highly technical operational issues, they generally identify both flaws and fixes. Nevertheless, most of the broader reports of the UCS seem to come to the conclusion that nuclear power is not needed or is too expensive.

On the other hand, a somewhat less well known national organization that operates in the national arena, the [Institute for Energy and Environmental Research \(IEER\)](#) has a banner for one its programs on its website reading "carbon-free and nuclear-free." Most recently, given the growing interest in small modular reactors (SMRs) among nuclear professionals, policy makers and the public, the IEER published a study claiming that SMRs did not address safety, waste or cost concerns associated with nuclear power. I also [covered that report in a blog](#).

There are other declared national anti-nuclear groups as well. I highlighted UCS here because of its prominence, and IEER because it is a lesser-known one whose reports I have mentioned in my blog. However, others that readers may have

heard of include [Greenpeace USA](#), Nuclear Control Institute (NCI) (no website at time of this writing), [Nuclear Information and Resource Service \(NIRS\)](#), and [Beyond Nuclear](#). In addition, there are a larger number of groups that have a regional focus and exist primarily to oppose an existing nuclear power plant or to prevent the building of a new one. Again, this may be an overly broad generalization. I am not personally familiar with every such organization, and some may truly operate more as watchdogs to assure that high standards are met. However, most are not shy about stating objectives to shut nuclear plants down in their regions. A few examples, picked at random, are:

[San Luis Obispo Mothers for Peace](#): "a non-profit organization concerned with the local dangers involving the Diablo Canyon Nuclear Power Plant, and with the dangers of nuclear power, weapons and waste on national and global levels."

[Snake River Alliance](#): "serves as Idaho's nuclear watchdog and Idaho's advocate for renewable and nuclear-free energy."

[Nuclear Free Vermont](#): "a grassroots, all-volunteer association of citizens committed to closing the Entergy Nuclear Vermont Yankee power reactor in Vernon, Vermont when its license expires in 2012."

A good list of anti-nuclear organizations, regional and national, appears on [the Wikipedia site on anti-nuclear groups in the United States](#).

Blue Ribbon Commission

The final group I'd like to cover in this essay is the [Blue Ribbon Commission on America's Nuclear Future](#). This group differs from all the others in these two essays in a number of ways. Most importantly, it is a temporary entity. It was established early in 2010 by DOE at the direction of the President, and its work is scheduled to last only 24 months. This Commission was established when the [Department of Energy filed a motion](#) to withdraw its application to the Nuclear Regulatory Commission to build a high-level nuclear waste repository at Yucca Mountain, and was intended to identify alternatives to replace that approach. The Commission consists of 15 prominent experts with knowledge and expertise on the topics expected to be addressed by the Commission, or representatives of entities relevant to the study, including research facilities, academic and policy-centered institutions, industry, labor organizations, environmental organizations, and others. Their mission is to conduct a comprehensive review of policies for managing the back end of the nuclear fuel

cycle, including all alternatives for the storage, processing, and disposal of civilian and defense used nuclear fuel, high-level waste, and materials derived from nuclear activities. Specifically, the Commission will provide advice, evaluate alternatives, and make recommendations to the U.S. government for a new plan to address these issues. To date, they have held a number of public meetings to gather information and viewpoints, and have heard testimony from many experts on nuclear issues, a number of them from the other organizations I have mentioned in this essay and the previous one.

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This essay concludes my second series of essays from the Marcus Room. As before, I have enjoyed this opportunity to share some thoughts and ideas about nuclear power. At the request of JANUS and the readers of the essays, I have spent a number of the essays in this series providing some background information on the NRC and on other U.S. organizations that I hoped would be of interest and use to my readers in Japan and elsewhere. I have been pleased to hear some feedback that people have found my essays useful. At present, I do not know what the future holds for the Marcus Room, but I have maintained close professional and personal associations with many Japanese colleagues over the years and expect to continue to do so in the future, so when the Marcus Room is dark, I will still keep in touch in other ways.

In the meantime, I wish to thank JANUS for giving me this second opportunity to prepare essays for their website, and to my readers for taking the time to read my essays, and in some cases, to provide their reactions to them.

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Although the series is finished, I will still welcome comments on this essay or on past essays. My e-mail address is

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