The Nuclear Energy Arena

Chain Reaction. Expert Debate and Public Participation in American Commercial Nuclear Power, 1945–1975. BRIAN BALOGH. Cambridge University Press, New York, 1991. xii, 340 pp. $34.50.

In the last decade or so, American historians and political scientists have interested themselves in the strategies and structures of U.S. federal governance. Where do public policies come from? How are government programs implemented? Do governmental structures influence policy outcomes? What are the relative contributions of public administrators, private interest groups, and political entrepreneurs to the process? How has the institutional universe of policy-making and program administration changed over time? To what end?

Brian Balogh uses the history of policy debates over commercial nuclear power to explore these major themes. Research into archival records and manuscript collections enables him to address a number of specific empirical issues. These include the origins and development of the Atomic Energy Commission and Joint Committee on Atomic Energy; the early concern among AEC professionals with matters of reactor safety, site review, and radiation surveillance; the contrasting political styles and ideas of AEC chairmen David Lilienthal, Lewis Strauss, and Glenn Seaborg; and the persistent economic obstacles to private nuclear power development. But the book deserves attention as much for its generalizations on the structure of postwar policy-making as for its close analysis of the politics and personalities of commercial nuclear power.

As the author notes, World War II altered fundamentally Washington's relationship to a wide range of public issues. In the case of big science, federal funds and public agencies displaced private philanthropy and voluntary organizations as key sources of policy leadership and administration. Balogh outlines the contrast in an interesting opening chapter.

At the end of the war, policy-making for nuclear power resided with a handful of central decision-makers, and the successful merger of scientific, engineering, and managerial professionals in the Manhattan Project guaranteed them widespread public trust. There were also high hopes for atomic-generated electric power, for civilian administrators and politicians had heightened expectations during their successful fight against military control of postwar nuclear power policy. In 1946, their victory was institutionalized in the civilian-dominated Atomic Energy Commission and congressional joint committee.

The new agencies then launched a frustrating, decade-long effort to generate support for their policies from economic interest groups. In so doing they reversed the usual pattern of "iron triangle politics," where private economic groups and congressional oversight committees combine to pressure government agencies for action. What is striking about nuclear energy politics, and by implication other postwar policy issues, is the significance of federal initiative and federal money in shaping the policy agenda. This is one of the book's guiding interpretative themes.

Of course, by the mid-1970s everything looked very different in the field of nuclear power, and much of *Chain Reaction* is devoted to explaining why this is so. By then, the comparatively self-contained universe of early policy-making for nuclear energy had cracked apart; the initial consensus style of closed politics had yielded to a more adversarial approach. And though some commercial development did materialize, it fell below original expectations. Reactor technology had depended from the start on military, especially navy, funds in any case, and civilian demand languished until the 1960s, after which the industry stumbled into public controversy over safety and environmental issues.

In the meantime, claims to a government monopoly on nuclear expertise could no longer be sustained. Competition for policy-making authority increased. Nuclear experts seemed to be everywhere. In addition, representatives from competing scientific disciplines such as biology and environmental engineering also insisted on being heard. So did grass-roots citizen organizations, along with state governors and public health officials, as well as competing federal agencies and congressional committees. Whereas an ideology of national security protected early administrators from public scrutiny, skeptics could now use environmental concerns and health and safety issues to get a hearing and force accountability. By the end of Balogh's story, the politics of nuclear energy had become as much a struggle about equal access to policy-making and due process as a debate over arcane technical questions. Fragmentation and interdependence, not coherence and autonomy, characterized the process.

A number of factors external to the policy-making process can help to explain these developments, including rising public skepticism about government bureaucracy after Watergate and the Vietnam war. Balogh's contribution, however, is to focus on pressures within the policy-making process itself. The accumulation of information and growing application of scientific techniques among competing professional experts both inside and outside the AEC generated its own dynamic. Internal agency disputes spilled into the public press. Squabbles among scientists undermined the consensus critical to sustaining expert political authority. As well, competing scientific experts reached out to different parts of the political system for institutional support. The network of opposition and controversy widened. The idea of autonomous decision-making for nuclear power policy gave way before the pluralism of American politics and the proliferation of expertise.

As this brief summary suggests, *Chain Reaction* is a complicated piece of historical narrative and analysis. The story line is sometimes difficult to follow. But this is a significant work, and one that deserves to have a major influence on subsequent attempts to write the history of administrative politics in the United States since World War II.

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Pre-War Ecology

Pioneer Ecologist. The Life and Work of Victor Ernest Shelford, 1877–1968. ROBERT A. CROKER. Smithsonian Institution Press, Washington, DC, 1991. xviii, 222 pp. + plates. $27.50.

During its first half century, the new science of ecology in this country was intellectually dominated by a group of botanists who grew up or were trained in the Midwest. Most prominent among them was Frederic Clements of Nebraska (born