Record Nr. UNINA9910524706603321 Autore Carlisle Rodney P Titolo Supplying the Nuclear Arsenal: American Production Reactors, 1942-1992 / / Rodney P. Carlisle, with Joan M. Zenzen Pubbl/distr/stampa Johns Hopkins University Press, 2020 Baltimore, MD:,: Johns Hopkins University Press,, 1996 ©1996 **ISBN** 0-8018-5207-2 1-4214-3590-X Edizione [1st ed.] Descrizione fisica 1 online resource (1 online resource (xiv, 275 pages) :) : illustrations Altri autori (Persone) ZenzenJoan M Disciplina 355.4/3/00973 Soggetti Nuclear reactors Nuclear fuels - Breeding Nuclear fuels - Breeding - United States - History Nuclear weapons - Equipment and supplies - Government policy -**United States** Nuclear reactors - United States - History History Electronic books. **United States** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Cover -- Copyright -- Contents -- List of Illustrations -- List of Tables and Figures -- Preface -- List of Abbreviations and Acronyms --Introduction -- 1. Inventing Atomic Piles -- 2. Building Reactors at Hanford -- 3. Contracting Atoms -- 4. Flexible Design at Savannah River -- 5. The Arms Race Arsenal -- 6. Designing a Reactor for Peace and War -- 7. Surviving Détente -- 8. Lobbying for Nuclear Pork -- 9. Managing Nuclear Options -- Conclusion: Supplying the Cold War Arsenal -- Appendix: Production Reactor Families -- Notes --Bibliographic Essay -- Index. Sommario/riassunto Originally published in 1996. Although the history of commercial-

power nuclear reactors is well known, the story of the government

reactors that produce weapons-grade plutonium and tritium has been shrouded in secrecy. Supplying the Nuclear Arsenal looks at the origin and development of these production reactors, Rodney Carlisle and Joan Zenzen describe a fifty-year government effort no less complex, expensive, and technologically demanding than the Polaris or Apollo programs—yet one about which most Americans know virtually nothing. Carlisle and Zenzen describe the evolution of the early reactors, the atomic weapons establishment that surrounded them, and the sometimes bitter struggles between business and political constituencies for their share of "nuclear pork." They show how, since the 1980s, aging production reactors have increased the risk of radioactive contamination of the atmosphere and water table. And they describe how the Department of Energy mounted a massive effort to find the right design for a new generation of reactors, only to abandon that effort with the end of the Cold War. Today, all American production reactors remain closed. Due to short half-life, the nation's supply of tritium, crucial to modern weapons, is rapidly dwindling. As countries like Iraq and North Korea threaten to join the nuclear club, the authors contend, the United States needs to revitalize tritium production capacity in order to maintain a viable nuclear deterrent. Meanwhile, as slowly decaying artifacts of the Cold War, the closed production reactors at Hanford, Washington, and Savannah River, South Carolina, loom ominously over the landscape.