1. Record Nr. UNINA9910702717403321 Autore **Duncan Renee** Titolo U.S. nuclear weapons stockpile: tritium and lithium production issues / / Renee Duncan, editor New York, [New York]:,: Novinka,, 2016 Pubbl/distr/stampa ©2016 1-63484-476-9 **ISBN** Descrizione fisica 1 online resource (89 p.) Collana Nuclear Materials and Disaster Research Disciplina 355.8251190973 Soggetti Uranium enrichment - International cooperation Tritium - Government policy - United States Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. U.S. NUCLEAR WEAPONS STOCKPILE TRITIUM AND LITHIUM Nota di contenuto PRODUCTION ISSUES: U.S. NUCLEAR WEAPONS STOCKPILE TRITIUM AND LITHIUM PRODUCTION ISSUES; Library of Congress Cataloging-in-Publication Data; CONTENTS; PREFACE; Chapter 1 DEPARTMENT OF ENERGY: INTERAGENCY REVIEW NEEDED TO UPDATE U.S. POSITION ON ENRICHED URANIUM THAT CAN BE USED FOR TRITIUM PRODUCTION*; WHY GAO DID THIS STUDY; WHAT GAO RECOMMENDS; WHAT GAO FOUND: ABBREVIATIONS: BACKGROUND: International Agreements and Peaceful Use Restrictions Existing and Proposed Enrichment Facilities in the United States That Use or Will Use Foreign Technology U.S. Involvement in the Nuclear Fuel Cycle Markets; Tritium Production; DOE HAS ONLY USED UNOBLIGATED LEU TO MEET NATIONAL SECURITY NEEDS FOR TRITIUM PRODUCTION; DOE'S PRACTICE OF USING UNOBLIGATED LEU FOR TRITIUM PRODUCTION IS BASED ON A MIX OF LEGAL AND POLICY CONSIDERATIONS, BUT A KEY ASSUMPTION UNDERLYING THIS PRACTICE HAS CHANGED; DOE's Practice of Using Unobligated LEU Is Based on a Mix of Legal and Policy Considerations; DOE References Legal Considerations for Its Practice Only One of the Three International Agreements We Reviewed Explicitly

Addresses by-product Material Such as Tritium U.S. Nonproliferation

Policy Goals Call for DOE to Use Unobligated LEU for Tritium

Production; The Key Assumption Underlying DOE's Practice, Available Unobligated LEU, Has Changed; CONCLUSION; RECOMMENDATION FOR **EXECUTIVE ACTION: AGENCY COMMENTS AND OUR EVALUATION:** APPENDIX I: OBJECTIVES, SCOPE, AND METHODOLOGY; APPENDIX II: PEACEFUL USE LANGUAGE IN KEY INTERNATIONAL AGREEMENTS ADDRESSING URANIUM ENRICHMENT FACILITIES OPERATING OR PLANNED FOR OPERATION IN THE UNITED STATES APPENDIX III: PEACEFUL USE LANGUAGE IN ADDITIONAL SELECT TREATIES AND INTERNATIONAL AGREEMENTS RELATED TO NONPROLIFERATION AND NUCLEAR TRADEEnd Notes; End Notes for Appendix I; End Note for Appendix III; Chapter 2 DOE PROJECT MANAGEMENT: NNSA SHOULD ENSURE EQUAL CONSIDERATION OF ALTERNATIVES FOR LITHIUM PRODUCTION; ABBREVIATIONS; WHY GAO DID THIS STUDY: WHAT GAO RECOMMENDS: WHAT GAO FOUND: BACKGROUND: NNSA's Nuclear Security Enterprise: Lithium Production ; Qualification Process; DOE's Capital Asset Acquisition Process and Mission Need Statement Development NNSA's Lithium Production StrategyNNSA HAS IDENTIFIED VARIOUS CHALLENGES IN ITS LITHIUM PRODUCTION STRATEGY: NNSA Has Identified Challenges in Three Key Areas; Insufficient Supply of Lithium Material; Catastrophic Failure of Buildings or Equipment; Potential Delays in the Availability of the Proposed Lithium Production Capability Facility; NNSA Has Identified Mitigating Actions to Address Some Challenges; NNSA'S MISSION NEED STATEMENT FOR A LITHIUM PRODUCTION CAPABILITY IS NOT FULLY INDEPENDENT OF A PARTICULAR SOLUTION; CONCLUSION; RECOMMENDATION FOR **EXECUTIVE ACTION** AGENCY COMMENTS AND OUR EVALUATION