CONTENTS

I. SUMMARY OF GENERAL STUDIES ON SAFETY, ENVI- RONMENTAL IMPACT AND COST OF MAGNETIC FUSION	
Fusion Reactor Economic, Safety, and Environmental Prospects R.W. Conn, J.P. Holdren, D. Steiner, D. Ehst, W.J. Hogan, R.A. Krakowski, R.L. Miller, F. Najmabadi, K.R. Schultz	3
European Studies on Safety, Environmental Impact, and Cost of Magnetic Fusion Power J. Darvas	35
General Methodology of Safety Analysis/Evaluation for Fusion Energy Systems (GEMSAFE) and its Applications Y. Fugii-e	41
Summary of the U.S. Senior Committee on Environmental, Safety, and Economic Aspects of Magnetic Fusion Energy (ESECOM) B.G. Logan, J.P. Holdren, D.H. Berwald, R.J. Budnitz, J.G. Crocker, J.G. Delene, R.D. Endicott, M.S. Kazimi, R.A. Krakowski, K.R. Schultz	67
II. GENERAL PROGRAM EVALUATION	
The Energy Scene in the Mid-21st Century L. Gouni	81
Review of Plasma Physics Constraints R.S. Pease	95
The Status of Inertial Confined Fusion Research in the US R.W. Conn	117
III. FEASIBILITY PROBLEMS	
Main Issues in Fusion Reactor System Engineering E. Salpietro	129
Special Materials for Fusion Reactors C. Ponti	147
Feasibility Aspects of the D- ³ He Fuel Cycle in Tokamak Power Reactor Plants G. Casini	159
1.7 (//X/I/I)	

Feasibility, Safety and Environmental Aspects of D- ³ He Fusion <i>M. Heindler</i>	173
IV. COMPONENT RELATED SAFETY AND ENVIRONMENTAL PROBLEMS	
First Wall and Blanket Safety M.S. Kazimi	183
Tritium Environmental Risk in Future Fusion Reactors Y. Belot and P. Zettwoog	199
V. SAFETY AND ECONOMY OF FUSION PROTO-REACTORS	
Safety and Environmental Impact of ITER/NET J. Raeder and W. Gulden	231
Cost Analysis of Next Step Devices and the Implications for Reactors W.R. Spears	279
Pulsed Versus Steady-State Reactor Operation in View of Safety and Economy R. Buende	295
VI. PANEL DISCUSSIONS AND CONCLUSIONS	
Introduction	307
Short Contributions: "Materials Selection for Fusion" (G.J. Butterworth); "Lessons from Fission - A Personal Perspective" (E.C. Brolin); "Dose Limits for Fusion Reactors" (P. Rocco); "Public Acceptance of Nuclear Fusion" (M. Snykers)	200
Panel Discussion on Safety and Environmental Impact of Fusion	309
Reactors K. Tomabechi	319
Panel Discussion on Economic Prospects of Fusion Reactors <i>R.W. Conn</i>	323
Concluding Panel R.S. Pease	327
VII. MISCELLANEA	
Participants	337
International School of Fusion Reactor Technology	339
INDEX, including explanation of abbreviations, acronyms, and radiological units	241
and radiological units	341