

Introduction

Decisions on the impact upon the community of proposed new bioprocessing facilities are often made at the community level, where little bioprocessing safety experience is likely to exist. Concerned local decision makers must evaluate expert testimony and then persuade the local community (often in the face of vocal opposition) of the validity of their decisions.

The intent of the First International Symposium on Large-Scale Bioprocessing Safety, on which this publication is based, was to provide an overview of and perspective on biological safety considerations for such facilities (as opposed to electrical, mechanical, chemical, or radiological safety issues) for products that have received federal regulatory approval of their safety and efficacy. This volume also focuses on basic concepts in the safe and responsible integration of the bioprocessing facility into the local community.

The term bioprocessing is treated broadly to include traditional bioprocessing (such as the biological aspects of cheese and beer production); the production of bulk chemicals (e.g., citric acid); the production of antibiotics, vaccines, and microbial pesticides; and newer developments, such as large-scale bioprocessing using genetically modified microorganisms and mammalian cell culture techniques.

The emphasis of this volume is on the concerns of the decision maker who has no formal training in biosafety issues. This publication attempts to provide an overview of worker and community safety and health issues related to large-scale bioprocessing.