

1. Record Nr.	UNISALENT0991003801089707536
Autore	Scève, Maurice
Titolo	Arion ; Saulsaye ; Blasons / Scève . Les Élégies / Ronsard
Pubbl/distr/stampa	Paris : Éditions d'art L. Mazenod, 1959
Descrizione fisica	220 p. : ill. ; 24 cm
Collana	Les écrivains célèbres
Altri autori (Persone)	Ronsard, Pierre : de
Disciplina	841.4
Lingua di pubblicazione	Francese
Formato	Materiale a stampa
Livello bibliografico	Monografia
2. Record Nr.	UNINA9910830088403321
Titolo	Handbook for process safety in laboratories and pilot plants : a risk-based approach / / American Institute of Chemical Engineers, issuing body
Pubbl/distr/stampa	Hoboken, N.J. : , : John Wiley & Sons, Inc., , [2023] ©2023
ISBN	1-5231-5726-7 1-119-69338-1 1-119-69337-3
Edizione	[First edition.]
Descrizione fisica	1 online resource (557 pages)
Collana	CCPS handbook
Disciplina	542.0289
Soggetti	Chemical laboratories - Safety measures
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Cover -- Title Page -- Copyright -- Table of Contents -- List of Figures

-- List of Tables -- Abbreviations and Acronyms -- Glossary --
Acknowledgments -- Dedication -- Online Materials Accompanying
this Handbook -- Preface -- Part 1 - Introduction and Overview -- 1
Purpose and Scope -- 1.1 Purpose -- 1.2 Scope of Book and Target
Audience -- 1.3 Terms for Laboratories and Pilot Plants -- 1.4
Distinctions between Laboratories and Pilot Plants -- 1.5 Organization
of This Handbook -- 2 Managing Risk to Prevent Incidents -- 2.1 Some
LAPP Characteristics -- 2.2 Safety in Laboratories and Pilot Plants --
2.3 Where to Start with a Risk-based Approach in the LAPP -- 2.4 Gain
Leadership Support to Implement Risk Based Process Safety -- 2.5
Laboratory Safety Management System Considerations -- 2.6 Resources
for Risk Based Process Safety Management System -- 3 Leaks and Spills
in the LAPP -- 3.1 Leaks of Hazardous Materials -- 3.2 Spills of
Hazardous Materials -- Part 2 - Committing to Process Safety -- 4
LAPP Risk Management Concepts -- 4.1 Occupational Safety and
Process Safety -- 4.2 Hierarchy of Controls -- 4.3 Inherently Safer
Design (ISD) -- 4.4 Basic Risk Concepts -- 4.5 A Risk Management
Program -- 4.6 Anatomy of an Incident -- 4.7 Preventive and Mitigative
Safeguards -- 4.8 Applying a Risk-Based Approach in a LAPP -- 5
Process Safety Culture in the LAPP -- 5.1 RBPS Element 1: Process
Safety Culture -- 5.2 Leaders' Responsibilities for Positive Safety
Culture -- 5.3 Resources and Examples for Process Safety Culture -- 6
Standards for the LAPP -- 6.1 RBPS Element 2: Compliance with
Standards -- 6.2 Risk Management Focus -- 6.3 Different Codes and
Standards When Scaling Up from Laboratory to Pilot Plant -- 6.4
Jurisdictional Requirements -- 6.5 Resources for Compliance with
Standards -- 7 Process Safety Competency and Training in the LAPP.
7.1 RBPS Element 3: Process Safety Competency -- 7.2 RBPS Element
12: Training and Performance Assurance -- 8 Workforce Involvement
and Stakeholder Outreach in the LAPP -- 8.1 RBPS Element 4:
Workforce Involvement -- 8.2 RBPS Element 5: Stakeholder Outreach --
Part 3 - Understanding Hazards and Risks -- 9 Process Safety
Knowledge Management in the LAPP -- 9.1 RBPS Element 6: Process
Knowledge Management -- 9.2 Overview of Information and Data
Needs -- 9.3 Sources of Information and Data -- 9.4 Process Safety
Information during Scale-up -- 10 Types of Hazards -- 10.1 Reactive
Chemistry Hazards -- 10.2 Toxicity Hazards -- 10.3 Flammability and
Combustibility Hazards -- 10.4 Temperature Hazards -- 10.5
Overpressure Hazards -- 10.6 Other Common LAPP Hazards -- 11
Hazard Identification and Risk Analysis (HIRA) in the LAPP -- 11.1 RBPS
Element 7: Hazard Identification and Risk Analysis -- 11.2 HIRA Team
Members -- 11.3 HIRA Approaches Used in LAPPs -- 11.4 Qualitative
versus Quantitative Analysis of Risks in LAPPs -- 11.5 ACS Hazard
Analysis Tools -- 11.6 Evaluating the Effort Level for HIRAs -- 11.7
Determining the Extent of the HIRAs -- Part 4 - Managing Risk:
Engineered Controls -- 12 Spill and Leak Protection -- 12.1
Containment -- 12.2 Flexible hose and tubing -- 13 Fire and Over-
Temperature Protection -- 13.1 Fire Prevention -- 13.2 Fire Mitigation
-- 13.3 Over-Temperature Protection -- 14 Overpressure Prevention
and Protection -- 14.1 Pressure Protection for Equipment -- 14.2
Pressure and Vacuum Relief for Atmospheric Pressure Vessels -- 14.3
Process Conditions/Situations to Consider in Pressure Relief Device
Design -- 14.4 Blast Containment Cells and Pressure Relief for Building
Areas -- 14.5 Venting Location and Downstream Treatment of Material
Vented -- 15 Ventilation Controls -- 15.1 Ventilation Systems -- 15.2
Laboratory Chemical Fume Hoods.
15.3 Pilot Plant Ventilation -- 15.4 Permanent Total Enclosures for
Containment in the LAPP -- 16 Automated Shut-down Systems -- 16.1

Selection and Design Based on Hazard Identification and Risk Analysis
-- 16.2 Basic Control Systems and Safety Shut-down Systems -- 16.3
Independent Automated Safety Shut-down Systems -- 16.4 Fail-Safe
Design Considerations -- 16.5 Important Design Features for Control
Systems -- 16.6 Control of Changes and Maintenance for Engineered
Safeguards -- 16.7 Additional References -- 17 Engineered Controls
for Common Hazards -- 17.1 Cryogenic Fluids and Compressed Gases
-- 17.2 Cryogenic Fluids and Compressed Gas Cylinders -- 17.3 Glass
Equipment -- 17.4 Gloveboxes -- Part 5 - Managing Risk:
Administrative Controls -- 18 Administrative Fire and Explosion
Safeguards -- 18.1 Standards and Guidance for Fire Prevention -- 18.2
Ignition Source Control: Procedures -- 18.3 Manual Fire Suppression --
19 Administrative Safeguards for Hazards in LAPPs -- 19.1 Good
Practices for Compressed Gas and Cryogenic Cylinders -- 19.2
Regulations and Standards for Compressed Gases and Cryogenic Fluids
-- 19.3 Procedures and Best Practices for Compressed Gases -- 19.4
Good Practices for Storage, Movement, and Use of Cryogenic Fluids --
19.5 Good Practices For Handling Glass -- 19.6 Administrative Controls
for Reactive Hazards -- Part 6 - Managing Risk: RBPS Management
Systems -- 20 Operating Procedures and Conduct of Operations in the
LAPP -- 20.1 RBPS Element 8: LAPP Operating Procedures -- 20.2 RBPS
Element 15: Conduct of Operations -- 21 Safe Work Practices and
Contractor Management in the LAPP -- 21.1 RBPS Element 9: Safe Work
Practices -- 21.2 RBPS Element 11: Contractor Management -- 22
Asset Integrity and Reliability in the LAPP -- 22.1 RBPS Element 10:
Asset Integrity and Reliability.
22.2 A Management Approach for Assuring Asset Integrity and
Reliability -- 22.3 Examples of Asset Integrity and Reliability
Management System Failures -- 22.4 Glass Equipment-Asset Integrity
and Reliability Challenge for LAPPs -- 23 Management of Change
(MOC) and Operational Readiness in the LAPP -- 23.1 RBPS Element 13:
Management of Change -- 23.2 RBPS Element 14: Operational
Readiness -- 24 Emergency Management in the LAPP -- 24.1 RBPS
Element 16: Emergency Management -- 24.2 Emergency Planning --
24.3 Implementing an Emergency Management Plan -- 24.4 Emergency
Equipment -- 24.5 Training and Drills -- 24.6 Deficiencies in
Emergency Planning and Response in LAPP Cases -- 24.7 Controlling
Unattended Experimental Work and Working Alone in LAPPs -- Part 7 -
Learning from Experience -- 25 Investigating Incidents -- 25.1 Incident
Terminology -- 25.2 RBPS Element 17: Incident Investigation -- 25.3
Steps of an Incident Investigation -- 25.4 Ensure Lessons Are Learned
and Remembered -- 25.5 Learn from Experience of Others -- 26
Metrics, Auditing, and Management Review in the LAPP -- 26.1 RBPS
Element 18: Measurement and Metrics -- 26.2 RBPS Element 19:
Auditing -- 26.3 RBPS Element 20: Management Review and
Continuous Improvement -- Part 8 - Conclusion -- References --
Appendix A Cases -- Appendix B Examples -- Appendix C Control
Banding Strategies -- Appendix D Glass Equipment Design -- Index --
EULA.

Sommario/riassunto

Handbook for Process Safety in Laboratories and Pilot Plants Effectively
manage physical and chemical risks in your laboratory or pilot plant In
Handbook for Process Safety in Laboratories and Pilot Plants: A Risk-
based Approach, the Center for Chemical Process Safety delivers a
comprehensive and authoritative presentation of process safety
procedures and methods for use in laboratories and pilot plants
(LAPPs). Of the four broad hazard categories -- chemical, physical,
biological, and ionizing radiation -- this book focuses on the two most
common: chemical and physical hazards. It addresses the storage and

handling of the hazardous materials associated with activities commonly performed in LAPPs and presents many of the physical and chemical analytical techniques used to verify and validate the efficacy of safety management systems. This book will present tools and techniques for effectively managing the risks in any laboratory or pilot plant using engineered and administrative controls, as well as the CCPS Risk Based Process Safety (RBPS) Management Systems. Readers will also find: A thorough introduction to process safety Comprehensive explorations of understanding hazards and risks, as well as managing risk with engineered controls, administrative controls, and RBPS Management Systems Practical discussions of how to learn from the experiences of your own LAPP and others Detailed case reports and examples, as well as practical tools, control banding strategies, and glass equipment design Perfect for any LAPP staff member working with or managing hazardous materials, Handbook for Process Safety in Laboratories and Pilot Plants: A Risk-based Approach will also benefit LAPP engineering and scientific professionals, LAPP technical support staff, and LAPP managers. The Center for Chemical Process Safety is a world leader in developing and distributing information on process safety management and technology. Since 1985, CCPS has published over 100 books in its process safety guidelines and concept series, 33 training modules as part of its Safety in Chemical Engineering Education series, and over 220 online offerings.
