

Lab Safety SOP

Presented By
Stephen Hansen, Chief Chemist
Fox River Water Reclamation District

CSWEA
December 6, 2011



Stephen Hansen
Chief Chemist

December 6, 2011 1

SOP Purpose

Safe Operating Procedures

Prevent and React
To Unsafe
Conditions and Situations



Stephen Hansen
Chief Chemist

December 6, 2011 2

Hazards Are Everywhere



Stephen Hansen
Chief Chemist

December 6, 2011 3

Combining Elements



Stephen Hansen
Chief Chemist

December 6, 2011 4

Safety Glasses, Goggles & Face Shields



Stephen Hansen
Chief Chemist

December 6, 2011

5

Lab Coats & Aprons



Stephen Hansen
Chief Chemist

December 6, 2011

6

Gloves



- Latex – light duty
- Nitrile – better with corrosives & organics
- PVC – acids, caustics, oils; less flexible
- Butyl Rubber – gases, water, alcohol, polar solvents
- Viton – chlorinated, aromatic solvents, PCBs
- Silver Shield – nearly impermeable & strong; less flexible



Stephen Hansen
Chief Chemist

December 6, 2011

7

Fume Hoods



Stephen Hansen
Chief Chemist

December 6, 2011

8

Shower & Eye Wash



Stephen Hansen
Chief Chemist

December 6, 2011 9

Labels & Signs



Stephen Hansen
Chief Chemist

December 6, 2011 10

Spill & First Aid Kits



Stephen Hansen
Chief Chemist

December 6, 2011 11

Storage



Stephen Hansen
Chief Chemist

December 6, 2011 12

MSDS



Stephen Hansen
Chief Chemist

December 6, 2011 13

Physical Hazards



- Pressure
- Vacuum
- Electricity
- Water
- Gas Cylinders
- Hot Equipment
- Other people



Stephen Hansen
Chief Chemist

December 6, 2011 14

Biological Hazards

- Wear gloves
- Protect your face
- Don't eat or drink in the lab
- Don't wipe your face
- Wash up when you leave
- Don't wear contaminated gloves/coats to other areas
- Remove gloves to answer the phone, open doors or transfer items
- Keep the lab clean & uncluttered



Stephen Hansen
Chief Chemist

December 6, 2011 15

Lab Safety SOP



Stephen Hansen
Chief Chemist

December 6, 2011 16