EDUCATION

STERIS UNIVERSITY

Surveying a Sterile Processing Department - ASC

One Integrated Approach to Healthcare.

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Partnerships

CCI® The Leader in Perioperative Certification

Through a partnership with CCI®, it also meets CNOR® and CSSM® recertification requirements for perioperative nurses.

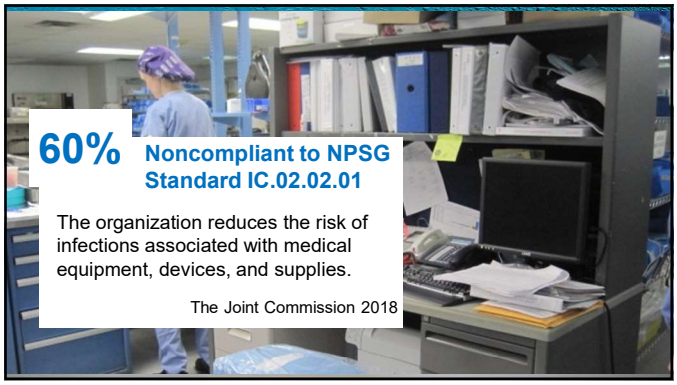
Learning Objectives

Upon completion of this course, you will be able to:

- Review infection prevention challenges specific to ASCs
- Identify areas for improvement that focus on decreasing healthcare infections

Common Processing Challenges for ASCs

- Space constraints
- Caseload vs. reprocessing speed
- No dedicated SPD staff
- Lack of education or competency



Top 10 Health Technology Hazards for 2020

ECRI Institute
The Discipline of Science. The Integrity of Independence.

1. Surgical stapler misuse.
2. Point-of-care ultrasound.
3. Sterile processing errors in medical and dental offices.
4. Central venous catheter risk in at-home hemodialysis.
5. Unproven surgical robotic procedures.
6. Alarm, alert and notification overload.
7. Connected home healthcare security risks.
8. Missing implant data and MRIs.
9. Medication timing errors in EHRs.
10. Loose nuts and bolts in devices.

Infection Control Plan

Surveillance and Disease Reporting	Hand Hygiene	PPE	Injection Safety
Respiratory/ Cough Hygiene	Environmental Cleaning	Transmission based precautions	Reprocessing of Medical Devices

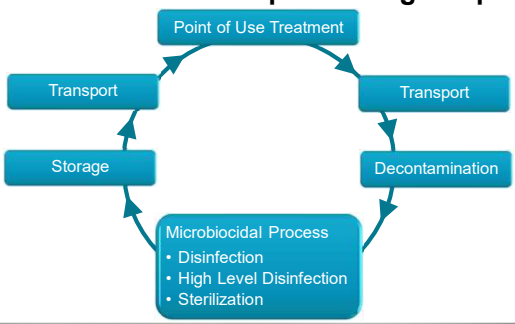
Infection Control Audit

- Direct observation
- Confirms compliance
- Identifies areas for improvement

Tool to get better!

Auditing Challenges

Medical Device Reprocessing Loop



Point of Use Treatment

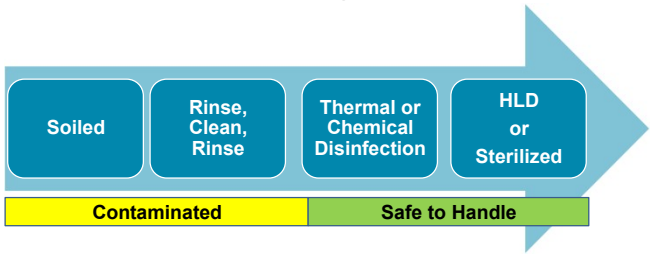
During Procedure
- Remove gross soil
- Keep Moist
- No saline

Post Procedure
- Remove gross soil
- Discard waste
- Disassemble per IFU
- Keep moist for transport

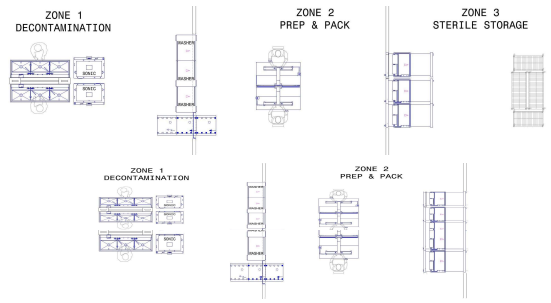
Soiled Transport – O.R.

- Puncture-proof container with lid or case cart
- Instruments kept moist
- Labeled BIOHAZARD
- As soon after procedure as possible

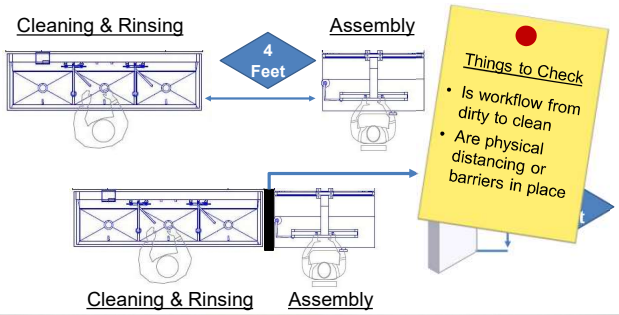
Reprocessing Workflow

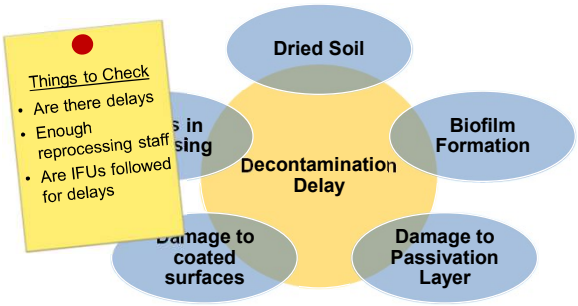


3-Zone and 2-Zone Workflow

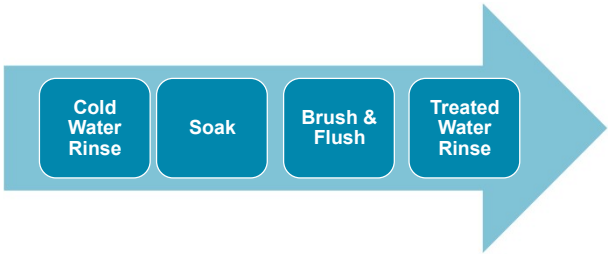


Single Zone Reprocessing

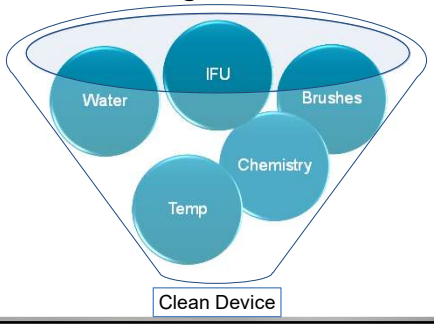




Manual Cleaning & Decontamination Steps



Manual Cleaning & Decontamination



Manual Cleaning & Decontamination

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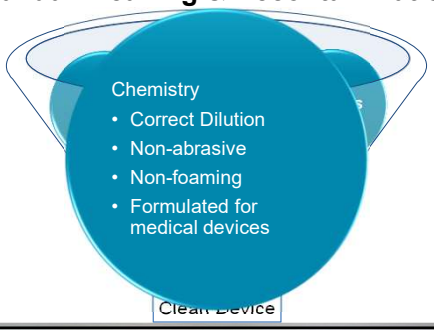

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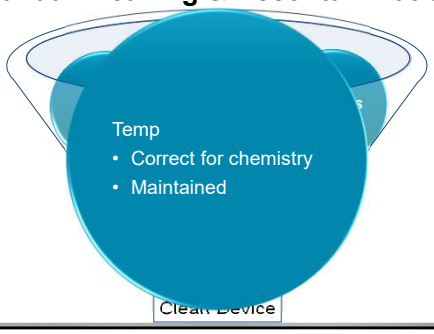

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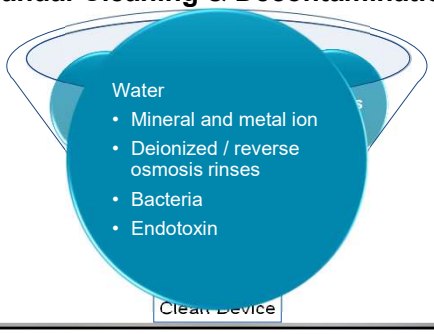

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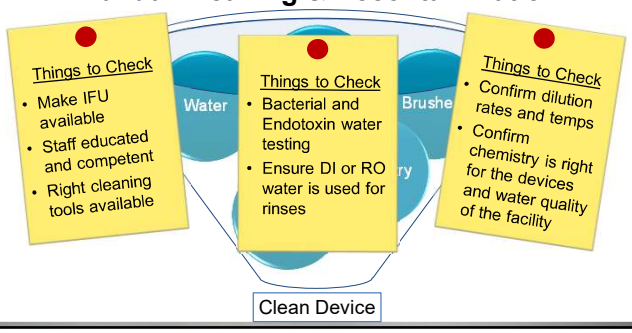
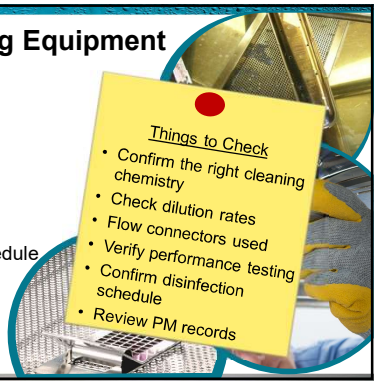


Automated Cleaning

Automated Cleaning

Automated Cleaning Equipment

- Water & cleaning chemistry
- Dilution rates
- Lumen flow & adapters
- Daily performance testing
- Cleaning & disinfection schedule
- Preventative maintenance



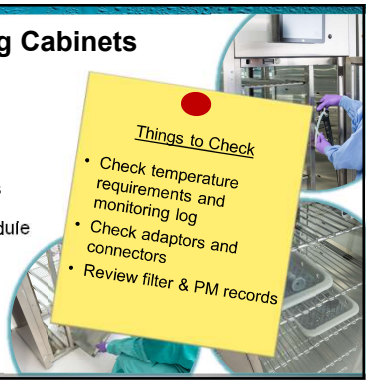
Drying

Pass Through

- Maintain positive pressure flow
- Drying station
- Cleaning & disinfection schedule
- Preventative maintenance

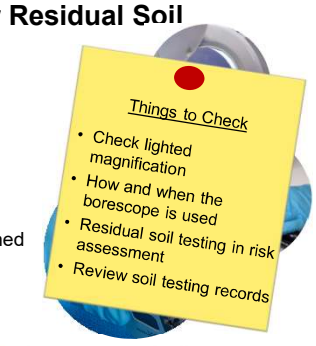
Drying Cabinets

- Temperature control
- HEPA filter air
- Lumen adapters / connectors
- Cleaning & disinfection schedule
- Preventative maintenance



Inspection for Residual Soil

- Lighted magnified inspection
- Borescope
- Residual soil tests
  - Many types
  - Frequency and scope determined by facility
  - Risk assessment

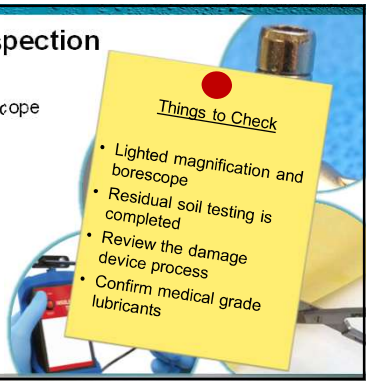


Assembly / Prep and Pack

Inspect → Assemble & Lubricate → Pack

Inspection

- Lighted magnification / borescope
- Visible soil & soil tests
- Moisture
- Device damage
- Functional testing
- Lubrication, if applicable



Assembly Prepares Device & Device Sets

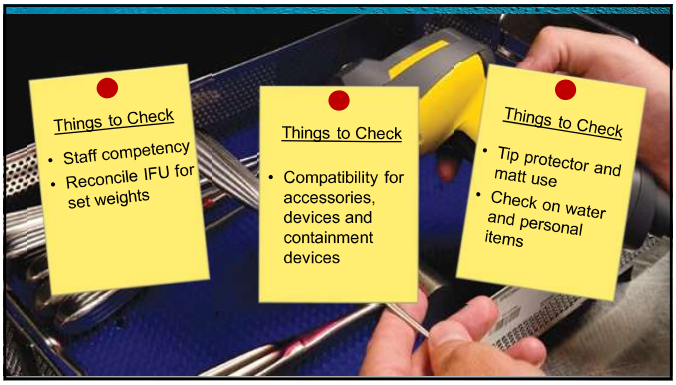
High Level Disinfection	Liquid Chemical Sterilization	Terminal Sterilization

Assembly - Steam

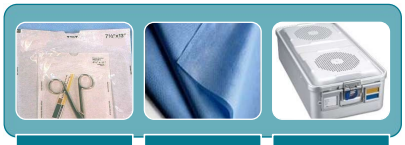
- Instrument Labeling
- Instrument positioning
- Set weight
- Water

Assembly – Instrument Protection

- Instrument holders / pouches
- Tip protectors
- Mats



Packaging & Labeling



Small Light-weight Items
Use before Expiration Date

Correct Weight & Size
Inspect for Defects
Store per IFU

Correct Filters & Accessories
Inspect for Damage & Cleanliness

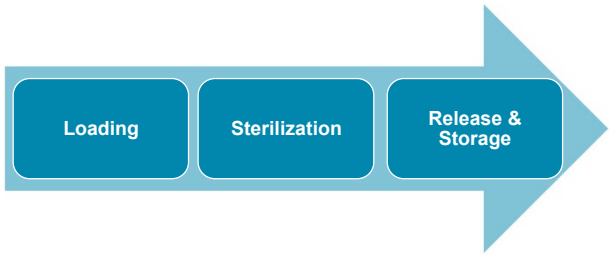

Non-toxic ink

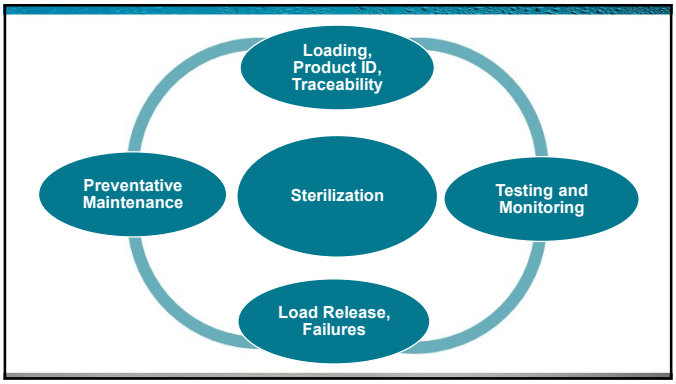

Load label


Tamper arrow


Packaging tape

Assembly / Prep and Pack





Sterilization Processes


Steam


Vaporized Hydrogen Peroxide


Ethylene Oxide

Steam Cycle Choice

Gravity
- 30 min exposure at 250°F
- 15 min exposure at 270°F

Prevacuum
- 4 min exposure at 270°F
- 3 min exposure at 275°F

Steam-Flush Pressure-Pulse (SFPP)
- 4 min exposure at 270°F
- 3 min exposure at 275°F

- Long time
- Few
- Few assurance

Things to Check
- Load Weight
- Extended cycles
- Standardized cycles

Loading - Steam

- Pouches and textiles on edge
- Containers and trays flat
- Basins tilted to drain
- Heavy on the bottom

Immediate-Use Steam Sterilization

Urgent Clinical Situations

↓

Immediate Use

Things to Check
- IFU available and followed
- Competencies complete
- Container validated of IUSS
- Volume and reasons are consistent with CMS guidelines

VHP Cycle Choice

Lumen Cycles
- Lumen or cannulated devices
- Mixed loads

Non Lumen Cycles
- No lumens or cannulation

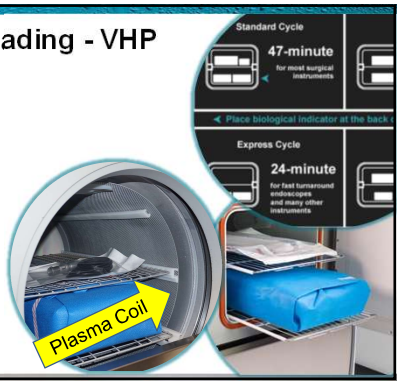
Flexible Cycles
- Flexible endoscopes
- Mixed loads

- St
- G
- V

Things to Check
- Right cycle
- Compatible
- IFU / Device Matrix

Loading - VHP

- Placed flat
- Do not touch plasma coil
- Follow loading charts



Sterilization Process Monitoring

- Cycle print out
- External chemical indicators
- Internal chemical indicators
- Biological indicators
- Process challenge device
- Special tests

Sterility Assurance

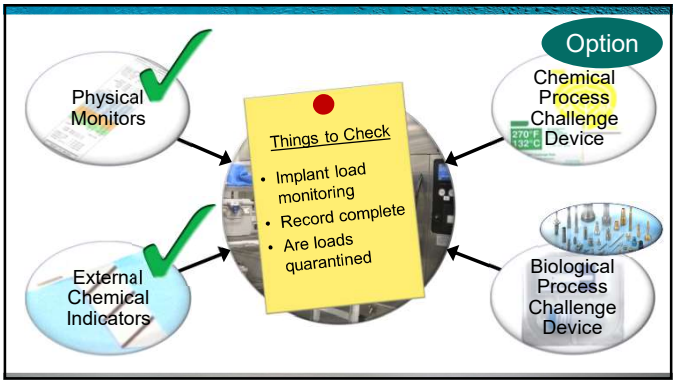
- Qualification
- Routine monitoring
- Load release
- Package release
- Product quality assurance tes

Things to Check
- Qualification test records
- Routine and load monitoring standards
- Product testing?

When is Qualification Needed?

- Installation
- Relocation and changes in utilities
- Sterilization malfunctions or failures
- Major repairs

- 3 consecutive test cycles
- Process Challenge Device (PCD)
- Special Tests, if applicable



Emergency Release

- **Documented medical exception**
- **Exception not rule**
- **Policy and procedures**
- **Trending**

Equipment Records, continued

Tests
• Equipment cleaning & verification
• Leak test
• Bowie-Dick test
• Routine biological indicator
• Qualification test results
• Product testing test results

Equipment Records

Service & Maintenance
• Daily maintenance activities
• Preventative maintenance records
• Repair records
• Calibration records
• Installation records
• Relocation records
• Changes to equipment parameters settings

Facility Records

Maintenance
• Corrective actions for steam delivery system
• HVAC parameters by room for the department
Tests
• Assessment of steam quality
• Assessment of water quality (tap and treated)
• Routine testing of safety equipment, such as eyewash stations

Sterilization Records

Records
• Load/lot number identification
• Detailed load content list
• Sterilizer cycle printout
• Sterilization cycle parameters
• Operator identification
• Biological indicator PCD results
• Chemical indicator PCD results

Sterilization Records cont'd

Records
• Reports of inconclusive or non-responsive chemical indicators
• Emergency release documentation
• Traceable

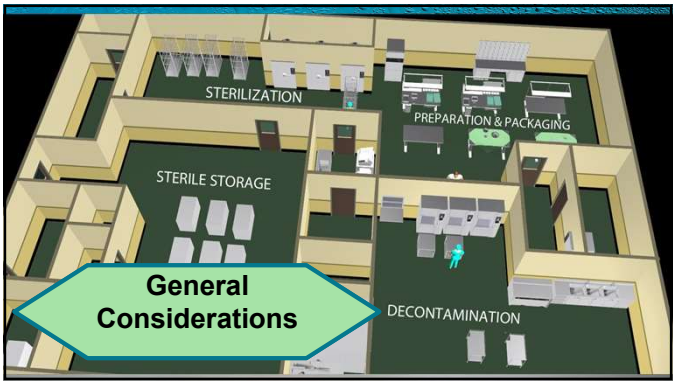
Administrative Records

Records
• Competencies
• Audit findings and corrective actions
• Additional medical device instructions
• Failure tracking and corrective actions
• Recall records
• Critical supplier communications / recalls
• Loaned equipment transactions
• Continuous quality improvement record

Things to Check
- Audit documentation
- Compare against the standards

Types of Electronic Documentation Systems

- Document management systems (DMS)
- Semi-automated systems (SAS)
- Workflow management systems (WMS)



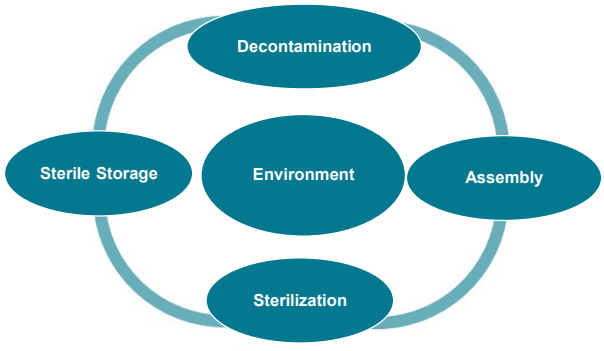
Personal Protective Equipment (PPE)

Dirty Side
- Face shield
- Surgical mask
- Fluid resistant gown
- Chemical gloves

Things to Check
- Right PPE for the job
- Observe use
- Donning and doffing

covers

Clean Side
- Chemical gloves
- Thermal resistant gloves
- Safety googles / glasses



Traffic Patterns - Decontamination

Lighting

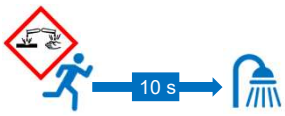
Temperature & Humidity

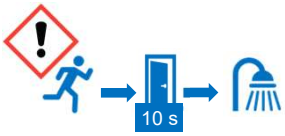
Hand Hygiene

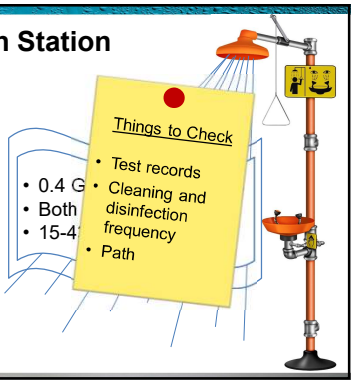
Hand Hygiene

- Wash hands
- Medical grade lotions
- Alcohol-based product
- Hand washing stations

Emergency Eye Wash Station







Surfaces

Have:
- Smooth
- Nonporous
- Compatible

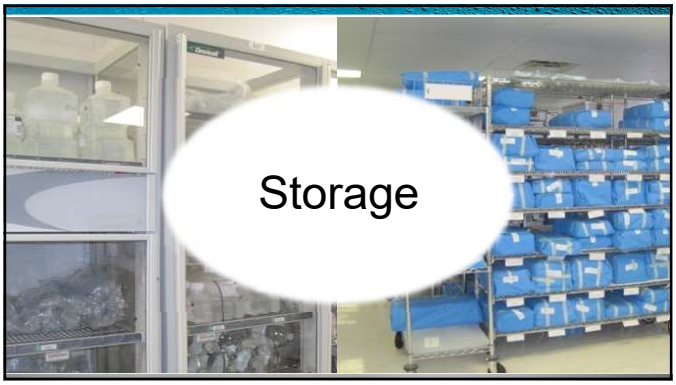
Avoid:
- Textured
- Porous
- Non-compatible

Environmental Services (EVS) in SPD

Cleaning protocol for each area

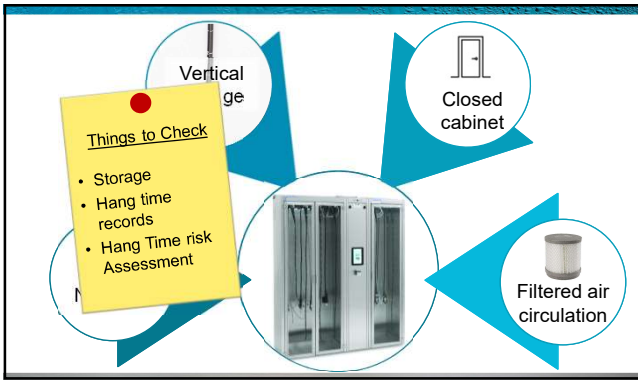
Things to Check
- Trash & Linen Schedule
- PPE and Attire
- Cleaning Chemistry
- Disinfectants

EVS staff competency



Sterile Storage

- Clean and organized
- Restricted access
- Environment monitored
- Cleaned regularly



Resources

Action Plan

- Survey the SPD
- Develop a plan to address gaps
- Educate, train and assess

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