



CONFIDENTIAL

JANITORIAL SERVICES PROPOSAL

RFP#: 18-0007

Prepared for: Memphis - Shelby County Airport Authority

February 12, 2018

ORIGINAL



Memphis-Shelby County Airport Authority
RFP NO: 18-0007

February 12, 2018

Mahi Chambers
Director of Staff Services
4121 Runway Rd, Suite B
Memphis, TN 38118-6613

Dear Ms. Chambers:

Thank you for including our organization in your RFP for Custodial Cleaning Services at the Memphis International Airport. We understand the importance and direct effect these services play in your mission.

SKB Facilities & Maintenance offers a wide range of service solutions, from single services to Integrated Facility Model (IFM) that combine all of the customer's service and support functions into one single customer focused solution.


Our capabilities in custodial and facility services are unmatched in the industry. We have the resources, experience, commitment and a proven, successful record of accomplishment to demonstrate success.

Our customers select SKB, and the industry recognizes us, because we are on the cutting edge of Custodial and Facilities Services. We drive value to our customers through innovation in every aspect of our service chain.

It is clear that Memphis – Shelby County Airport Authority is committed to the highest standard of service to its passengers, customers and employees. You have our commitment that our team will support you in the delivery of quality custodial services. Our service upholds our mission statement, “To Create a Brand New Appearance for Our Customer, Everyday” to ensure that Memphis International Airport receive the care and attention required. It is critical that you select a company that has the resources and commitment to serve you and your staff.

We look forward to future discussions!

Respectfully,



Shone Bynum
President

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Company Information

SKB Facilities and Maintenance, Inc., was founded April 1, 2008 in Memphis, TN by Shone and Kelley Bynum. Our corporate office is located at 3571 Winchester Rd, Memphis, TN 38118, and we also have offices located in East Tennessee and Alabama. Shone Bynum, President, will be the contact person of record for this contract and he can be reached at (901) 791-2162.

Some of our current accounts are FedEx, Collierville School District, Shelby County Government, Arlington School District, City of Memphis Police Department, Memphis Light Gas & Water and many more.

Our leadership, training and change management set us apart from other companies. Combined between Shone and Kelley they have over thirty-five years of business experience and twenty-five years of human resource experience. Our leadership experience has taught us that influencing our employees to have a common goal is critical to our business! Our goal is to anticipate our customers' needs and exceed their expectations.

As a financially stable janitorial company, we have the financial capacity, experience and processes necessary to provide cleaning solutions that maximize your investment. We understand that you can't afford down time to address janitorial issues, and we also know that exceptional service is a focus for you.

At the same time, we know that safety plays a critical role in your environment. SKB's company-wide programs include on-site training, web-based safety courses, and visual inspections with corresponding documentation.

15.2.1

SKB Facilities & Maintenance, Inc.

15.2.2

3571 Winchester Rd.
Memphis, TN 38118

15.2.3

same as above

15.2.4

Shone Bynum
President/CEO
901-791-2162(o)
shone@skbfm.com

17 REQUEST FOR PROPOSALS FORMS

17.1 Respondent Information Form (Required)

If Respondent is an INDIVIDUAL, fill out the following:

Individual's name: _____

If Respondent is a PARTNERSHIP, fill out the following:

Partner Name:

Partner Address:

_____	_____
_____	_____
_____	_____
_____	_____

If Respondent is a CORPORATION, fill out the following:

NAME OF CORPORATION PRESIDENT: Shone Bynum

NAME OF CORPORATION SECRETARY: Kelley Bynum

All Respondents fill out the following:

NAME OF COMPANY: SKB Facilities & Maintenance

PRINCIPAL BUSINESS ADDRESS: 3571 Winchester Rd.

CITY, STATE, ZIP CODE: Memphis, TN 38118

LOCAL STREET ADDRESS: 3571 Winchester Rd.

CITY, STATE, ZIP CODE: Memphis, TN 38118

FEDERAL TAX ID #: 27-0987241

TELEPHONE NUMBER: 901-791-2162 CELL NUMBER: 901-218-7191

EMAIL ADDRESS: shone@skbfm.com

PRINTED NAME: Shone Bynum

SIGNATURE OF RESPONDENT: 



**MEMPHIS AND SHELBY COUNTY
BUSINESS TAX LICENSE**

RECEIPT NUMBER	182000325
LICENSE NUMBER	110005042
THIS LICENSE EXPIRES	05/15/2018
CLASSIFICATION	3

OWNER(S)
SKB FACILITIES & MAINTENANCE,

BUSINESS LOCATION ADDRESS
3571 WINCHESTER ROAD MEMPHIS , TN 38118

SKB FACILITIES & MAINTENANCE, INC.

**3571 WINCHESTER ROAD
MEMPHIS, TN 38118**

**MUST DISPLAY IN A CONSPICUOUS
PLACE**



Memphis-Shelby County Airport Authority
Memphis, Tennessee

17.2 Proposal Bond

PROPOSAL BOND

KNOW ALL PERSONS BY THESE PRESENTS, that we the undersigned,
SKB FACILITIES & MAINTENANCE, INC.
3571 Winchester Road, Memphis, TN 38116 as Principal and

(Insert full legal name and address or Respondent/Offeror)
UNITED STATES FIRE INSURANCE COMPANY
305 Madison Ave., Morristown, NJ 07962 as Surety,

(Insert full name and address or legal title of Surety)

Licensed under the laws of the State of Tennessee to act on surety bonds for principals, are hereby held and firmly bound unto

Memphis-Shelby County Airport Authority
2491 Winchester Road, Suite 113
Memphis, Tennessee 38116-3856

Eighty Seven Thousand, Five Hundred
Dollars and 00/100***

in the sum of Five Percent of the First Year Proposed Price or \$10,000, whichever is greater Dollars (\$87,500.00****),
for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors,
and administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a proposal to Memphis-Shelby County Airport Authority for Janitorial Services, Proposal
Number 18-0007, and more fully described in said Request for Proposal and made a part hereof and incorporated herein by
reference; and

WHEREAS, It is one of the conditions of the Request for Proposal that this Bond be executed prior to the award of the Contract;

NOW, THEREFORE, if the Proposal shall be accepted and the Principal shall enter into a Contract in accordance with the terms of
such Proposal, and furnish such bonds and proof of insurance as required in the Proposal or Contract Documents with good and
sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the
performance thereof and in connection therewith, and shall in all other respects perform the agreement created by the acceptance
of said Bond, then this obligation shall be void, otherwise the same shall remain in full force and effect. The Principal or the Surety
shall not be liable for any amount in excess of the sum stated in this Bond, and the obligation shall be in no way impaired or affected
by any extension of time within which the Proposal may be accepted; and said Surety does hereby waive notice of any such
extension.

Signed and sealed this 30 day of January, 2018

PRINCIPAL

SKB FACILITIES & MAINTENANCE, INC.

Respondents Name

By:

Signature of Principal

Printed Name

Shore Bynum

SURETY

UNITED STATES FIRE INSURANCE COMPANY

(Surety)

By:

Signature of Attorney-in-Fact

Sam H. Newberry

Printed Name

POWER OF ATTORNEY
UNITED STATES FIRE INSURANCE COMPANY
PRINCIPAL OFFICE - MORRISTOWN, NEW JERSEY

01536408318

NOW ALL MEN BY THESE PRESENTS: That United States Fire Insurance Company, a corporation duly organized and existing under the laws of the state of Delaware, has made, constituted and appointed, and does hereby make, constitute and appoint:

Sam H. Newberry

each, its true and lawful Attorney(s)-In-Fact, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver: Any and all bonds and undertakings of surety and other documents that the ordinary course of surety business may require, and to bind United States Fire Insurance Company thereby as fully and to the same extent as if such bonds or undertakings had been duly executed and acknowledged by the regularly elected officers of United States Fire Insurance Company at its principal office, in amounts or penalties not exceeding: **Seven Million, Five Hundred Thousand Dollars (\$7,500,000).**

This Power of Attorney limits the act of those named therein to the bonds and undertakings specifically named therein, and they have no authority to bind United States Fire Insurance Company except in the manner and to the extent therein stated.

This Power of Attorney revokes all previous Powers of Attorney issued on behalf of the Attorneys-In-Fact named above and expires on January 31, 2019.

This Power of Attorney is granted pursuant to Article IV of the By-Laws of United States Fire Insurance Company as now in full force and effect, and consistent with Article III thereof, which Articles provide, in pertinent part:

Article IV, Execution of Instruments - Except as the Board of Directors may authorize by resolution, the Chairman of the Board, President, any Vice-President, any Assistant Vice President, the Secretary, or any Assistant Secretary shall have power on behalf of the Corporation:

(a) to execute, affix the corporate seal manually or by facsimile to, acknowledge, verify and deliver any contracts, obligations, instruments and documents whatsoever in connection with its business including, without limiting the foregoing, any bonds, guarantees, undertakings, recognizances, powers of attorney or revocations of any powers of attorney, stipulations, policies of insurance, deeds, leases, mortgages, releases, satisfactions and agency agreements;

(b) to appoint, in writing, one or more persons for any or all of the purposes mentioned in the preceding paragraph (a), including affixing the seal of the Corporation.

Article III, Officers, Section 3.11, Facsimile Signatures. The signature of any officer authorized by the Corporation to sign any bonds, guarantees, undertakings, recognizances, stipulations, powers of attorney or revocations of any powers of attorney and policies of insurance issued by the Corporation may be printed, facsimile, lithographed or otherwise produced. In addition, if and as authorized by the Board of Directors, dividend warrants or checks, or other numerous instruments similar to one another in form, may be signed by the facsimile signature or signatures, lithographed or otherwise produced, of such officer or officers of the Corporation as from time to time may be authorized to sign such instruments on behalf of the Corporation. The Corporation may continue to use for the purposes herein stated the facsimile signature of any person or persons who shall have been such officer or officers of the Corporation, notwithstanding the fact that he may have ceased to be such at the time when such instruments shall be issued.

IN WITNESS WHEREOF, United States Fire Insurance Company has caused these presents to be signed and attested by its appropriate officer and its corporate seal hereunto affixed this 10th day of March, 2016.

UNITED STATES FIRE INSURANCE COMPANY



Anthony R. Slimowicz, Senior Vice President



State of New Jersey }
County of Morris }

On this 10th day of March 2016, before me, a Notary public of the State of New Jersey, came the above named officer of United States Fire Insurance Company, to me personally known to be the individual and officer described herein, and acknowledged that he executed the foregoing instrument and affixed the seal of United States Fire Insurance Company thereto by the authority of his office.

SONIA SCALA
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES 3/25/2019

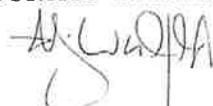
Sonia Scala



(Notary Public)

I, the undersigned officer of United States Fire Insurance Company, a Delaware corporation, do hereby certify that the original Power of Attorney of which the foregoing is a full, true and correct copy is still in force and effect and has not been revoked.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of United States Fire Insurance Company on the 30 day of Jan 2018
UNITED STATES FIRE INSURANCE COMPANY



Al Wright, Senior Vice President



15.4.1

Positive Comments

Client Name: Shelby County Government

Project Title: Janitorial Service

Scope of Work Performed: Perform Janitorial Services for Shelby County Government at “201 Poplar Avenue” where City and State Courts are located with 20+ courtrooms, Judges Chambers, District Attorney and Staff Offices, Department Administrators and City Clerks are serviced daily

Contact: Andy Ward

email: andy.ward@shelbycountyttn.gov

Phone Number: 901-301-5707

Date of Service: June 2014 - Ongoing

Estimated Square foot Cleaned Daily: 500,000

Client Name: City of Memphis Police Department

Project Title: Janitorial Service

Scope of Work Performed: Perform Janitorial Services for the City of Memphis Police Department at 14 Precincts, MPD Training Academy, Administration Building & Executive Offices and Coacts

Contact: Leon Hart

email: leon.hart@memphistn.gov

Phone Number: 901-636-3165

Date of Service: October 2011 - Ongoing

Estimated Square foot Cleaned Daily: 500,000

Client Name: City of Memphis City Hall

Project Title: Janitorial Service

Scope of Work Performed: Perform Janitorial Services for the City of Memphis “City Hall” where the City Mayor, City Attorney, City Council and Administration are housed

Contact: Melvin Jamerson

email: melvin.jamerson@memphistn.gov

Phone Number: 901-576-6766

Date of Service: June 2013 - 2016

Estimated Square foot Cleaned Daily: 300.000

Client Name: Memphis Light Gas & Water

Project Title: Janitorial Service

Scope of Work Performed: Perform Janitorial Services at Memphis Light Gas & Water

Contact: Willie Bowen

email: wbowens@mlgw.org

Phone Number: 901-491-5745

Date of Service: February 2015 - Ongoing

Estimated Square foot Cleaned Daily: 1.4 Million+

15.4.2

Negative Comments

Client Name: ISS Facility Services

Project Title: Janitorial Service

Scope of Work Performed: Perform Janitorial Services at Memphis International Airport

Contact: Ron Woods

email: ron.woods@us.issworld.com

Phone Number: 901-922-0217

Date of Service: November 2015 - Ongoing

Estimated Square foot Cleaned Daily: 1,000,000

15.5.1.1

SKB Facilities & Maintenance has been providing quality janitorial services delivery at the Memphis International Airport for the past two-plus years. We are your single-source solution provider, and a self-performing leader in the local facility services industry. Merging the power of our workforce with innovative technologies and efficient processes, we can bring quality janitorial services to the authority. SKB is also successfully providing outstanding janitorial service at FedEx, Shelby County Government (201 Poplar), City of Memphis Police Department, City of Memphis City Hall and Memphis Light Gas & Water. Although each facility has its own unique badging process, SKB's staff is able to conform and process employees quickly and seamlessly through each customer's process. As you will see with our list of references that have security measures similar to the security measures that are in place at the Memphis International Airport, we have dedicated office personnel that are dedicated totally to the processing of background checks at Memphis International Airport, Shelby County Government, Memphis Police Department and FedEx.

Currently, SKB is a subcontractor at the Memphis International Airport and is responsible for the cleaning of bathrooms, gates and common areas at the Memphis International on the 2nd shift, and all hard floor surface cleaning on the 3rd shift. There have been times that we've completed special projects for different reasons for the Authority. We are very familiar with all airport processes and policies.

The traffic flow at 201 Poplar is very similar to the traffic flow at the Airport. Each facility is open 24X7 (365 days per year). From 8:00am – 3:00pm Monday through Friday, 201 Poplar has 12 General Sessions Courts and 8 State Courts in session. The traffic flow is very high, continuous and confined, which presents certain challenges when it comes to cleaning throughout the facility. As it pertains to daily cleaning, the bathroom frequencies are somewhat similar, common areas duties and responsibilities are somewhat similar and the nightly bathroom detailing and floor service are similar. Weekends have unique challenges: the theft/ robbery department, homicide department, 911 call center, special session courts and district attorney offices have continuous traffic flow as well.

15.5.1.2

The contracts that SKB have in place now that are most similar in size to the current RFP are:

ISS Facility Service at Memphis International Airport

Length of Contract: 2.2 years

Sqft: 1,000,000

Contract Value: \$2,184,000

201 Poplar – Shelby County Government

Length of Contract: 4 years

Sqft: 500,000

Contract Value: \$819,768

Memphis Police Department – City of Memphis

Length of Contract: 7 years

Sqft: 500,000 plus

Contract Value: \$1,104,000

15.5.1.3

Similarities between the above mentioned contracts and the current RFP are as follows:

- All facilities are 24 X 7 X 365
- All facilities have a high flow of traffic during cleaning times
- All facilities scope-of-work are similar as it pertains to hard surface cleaning with employees/customers present
- All facilities are public facilities where the contractor must have extensive knowledge in Blood Borne Pathogen, quality control processes, a continuous improvement plan and an extensive training program
- Security is paramount
- Unplanned Shutdowns for spills etc.
- Safety with usage of Wet Floor Signs in high traffic areas, trash removal during peak times, proper usage of PPE equipment

15.5.1.4

Client Name: Shelby County Government
Contact: Andy Ward
email: andy.ward@shelbycountyttn.gov
Phone Number: 901-301-5707
Position: County Facilities Manager
Duties: Oversee and manage all county facilities

Client Name: City of Memphis Police Department
Contact: Leon Hart
email: leon.hart@memphistn.gov
Phone Number: 901-636-3165
Position: Memphis Police Department Facility / Asset Manager
Duties: Oversee and manage city police facilities and assets

Client Name: ISS Facility Services
Contact: Ron Woods
email: ron.woods@us.issworld.com
Phone Number: 901-922-0217
Position: Project Manager
Duties: Oversee daily operation at Memphis International Airport

15.5.1.5

SKB has a significant operational footprint throughout many high-traffic and security-sensitive facilities located in the region. Our experiences range from working at Memphis International Airport for the last 2 years to 201 Poplar for the last 4 years, and City municipalities as well. As you know, Memphis International Airport operates 24/7/365 as does 201 Poplar Ave. We are experienced in working in facilities with different levels of security measures from City & County Background Checks to Homeland Security background checks.

15.5.1.6

From working in City Municipalities, County Municipalities and at the Memphis International Airport, we understand that pedestrians must be provided with a safe, convenient, and accessible path past any work that a custodian, floor tech and/or supervisor may be performing. From working in high traffic areas, we understand how safety cones, markings and barriers may be needed at times. SKB has an extensive training program where “safety” of our customer is highlighted. As you will see throughout our proposal, we have a leadership team that has over 20 years’ experience in airport cleaning, cleaning processes and cleaning frequencies.

15.5.2.1

Manager	Experience	Training
Brandon Wooldridge	10 years Airport Experience at Memphis International Airport	Blood Bourne Pathogen, Biohazard Waste Removal Training, Green Cleaning Training, Spartan Site-Specific Training, 36 Week Safety Training, Carpet Cleaning Training & Scrubber & Equipment Training
James Bishop	9 years Airport Experience at Memphis International Airport	Blood Bourne Pathogen, Biohazard Waste Removal Training, Green Cleaning Training, Spartan Site-Specific Training, 36 Week Safety Training, Carpet Cleaning Training & Scrubber & Equipment Training
Terry Cobb	2 years Airport Experience at Memphis International Airport	Blood Bourne Pathogen, Biohazard Waste Removal Training, Green Cleaning Training, Spartan Site-Specific Training, 36 Week Safety Training, Carpet Cleaning Training & Scrubber & Equipment Training

Shone Bynum
8354 Countrywood Fwy.
Cordova, TN 38016
901-218-7191©
shone@skbfm.com

PROFESSIONAL EXPERIENCE

President **03/07 – Present** **Memphis, TN**
SKB Facilities & Maintenance, Inc.

- Oversee financials and manage budget in excess of \$4,000,000
- Plan, develop, organize, implement, direct and evaluate the organization's fiscal function and performance
- Participate in the development of the corporation's plans and programs as a strategic partner
- Evaluate and advise on the impact of long range planning, introduction of new programs/strategies
- Enhance and/or develop, implement and enforce policies and procedures of the organization by way of systems that will improve the overall operation and effectiveness of the corporation
- Generate new business
- Visit customer sites to evaluate efficiency of operation
- Estimate, compile and complete bid proposals
- Analyze financial reports and data to insure proper bidding of contracts
- Attend bid meetings, trade shows and conferences
- Manage overall operations of the business
- Improve the budgeting process on a continual basis through education of department managers on financial issues impacting their budgets
- Optimize the handling of bank and deposit relationships and initiate appropriate strategies to enhance cash position
- Develop a reliable cash flow projection process and reporting mechanism, which includes minimum cash threshold to meet operating needs

Staffing Manager **09/07- 04/09** **Memphis, TN**
Technicolor

- Create appropriate metrics for monitoring success of staffing function
- Create tracking mechanisms and reports for senior management
- Maintain job descriptions on all key positions within organization
- Maintain approved titling list and oversee all titling initiatives
- Update and distribute weekly open positions
- Develop and maintain manpower plans for all facilities
- Ensure compliance with all legal standards in employment process
- Coordinate offer letter process for all management positions
- Work with operations staff to ensure accuracy and timeliness of all letters generated
- Conduct meetings with all contracted vendors

President
D & A Staffing Service, INC

06/98-11/04

Memphis, TN

- Generate new business
- Complete financial records and submit state and federal reports
- Analyze reports and test data
- Facilitated training sessions
- Created professional development program
- Coached and counseled employees
- Managed Human Resources
- Recruited employees
- Developed policies and procedures
- Evaluated employees onsite
- Organize/manage ride to work program
- Campus assessment coordinator (U of M)

Education

Christian Brothers University
Executive Management Certification

Memphis, TN

Memphis State University
BBA

Memphis, TN

PROFESSIONAL DEVELOPMENT:

Successfully recruited over 400 employees during Q4 ramp up at Technicolor '07
Awarded Multi-Million dollar contract with MLGW 2002
Developed partnerships with Manpower, Memphis City Schools, Memphis
Shelby County Airport Authority and Cummins Diesel

Kelley Bynum
8354 Countrywood Fairway
Cordova, TN 38016
(901) 679.8345
Bynumkelley@yahoo.com

PROFESSIONAL SUMMARY

Senior HR Professional & Strategic Business Partner who establishes strong partnerships and provides expertise in Employee Relations, Recruitment, Comp/Benefits, Payroll, Training, Legal Compliance, Leadership Development and Performance Management.

PROFESSIONAL EXPERIENCE

Vice President – Human Resources

SKB Facilities & Maintenance, Inc., Memphis, TN

02/2015-present

Oversee all compliance and Human Resources/Training for the business. Strategically plan sales initiatives and generate new business. Assist with proposals and facilitate meetings. Present to potential customers and new business. Meet with customers to determine customer satisfaction and gage performance strengths. Manage HR policies and programs. Facilitate new employee orientation and safety training for all employees. Manage full-cycle recruiting process. Created corrective action program and wrote company hand book. Maintain legal compliance regarding all HR related policies and procedures. Investigate employee relations issues, worker's compensation claims and manage process. Train management on employee relations and sexual harassment prevention. Manage unemployment claims and hearings. Investigate EEOC claims, attend mediation hearings and write fact-based position statements.

Field HR Specialist

edEx Ground, Olive Branch, MS

01/2014 – 02/2015

Investigate and make recommendations on complex employee relations issues for the Delta and Mississippi Valley District. Work with management on employee relations, engagement and compliance issues. Recommend effective solutions to minimize risk to the company and promote employee satisfaction. Analyze HR metrics to identify trends and recommend appropriate action for improvement. Travel to various stations in five states and two districts to facilitate company assessments and promote a positive culture for the organization. Provide expertise in areas which may have legal liabilities, EEOC investigations, ADA, FMLA compliance. Assist with special projects, compensation review, and worker's compensation issues.

Human Resources Manager

Mimeo.com, Memphis, TN

11/2010 – 01/2013

Manage the HR process for Memphis, TN and Hayward, CA facility approximately 500 employees. Supervise several direct reports in the Memphis facility. Work with management on employee relations, compliance, policy interpretation, compensation, and employee performance issues. Consult with leadership team on a daily basis to ensure HR is consistent with business objectives. Analyze HR metrics to identify trends and recommend appropriate action for improvement. Actively involved in reducing turnover in the Memphis facility and proactively surface issues and develop appropriate measures and tools to improve situations. Serve as a resource to department managers and other employees. Coordinate worker's compensation program and assist with safety programs for the facility. Manage full-cycle recruiting process for both facilities. Facilitate trainings sessions for management with regard to employee relations, sexual harassment, FMLA, worker's compensation and workplace violence. Answer benefit questions and work with insurance vendor on complex issues. Coordinate benefits open enrollment and new employee orientation. Ensure the facility adheres to company policies, and local, state, and federal employment laws. Prepare monthly and annual reports; coordinate annual review process. Provide expertise in areas, which may have legal liabilities. Respond to EEOC and US Department of Labor complaints.

Human Resources Manager**01/2009 – 01/2010*****Sitel Corporation, Memphis, TN***

Leadership position which serves as a partner to the business leaders in a high volume call center. Coached and developed 6 direct reports in effectively administering HR policies and client responsiveness. Work with site director to establish long-term staffing goals and strategies to facilitate training programs for management. Managed the employee satisfaction survey, HR budget, rewards and recognition programs. Manage the yearly performance management and compensation process and monthly step increases. Successfully handled employee relations, EEOC and unemployment claims for a site of 800 FTE. Effectively recruited and managed ramp of over 500 full-time employees. Clients are Cigna Medical and Dental, Comcast and United Healthcare Group. Manage HR practices – Employee Relations, FMLA, Payroll, Leadership Training, EEOC, Workers Compensation/Safety and Recruiting. Change agent providing leadership direction and counsel to Sr. Leadership team and employees.

HR Generalist**07/2008 – 01/2009*****Technicolor, (Home Entertainment Division – Packaging & Distribution), Memphis, TN***

Work with site management team on employee relations issues and established long-term staffing goals and strategies; facilitate training programs, answered day to day questions from distribution employees regarding employee relations, benefits, workers compensation and disability. Successfully recruited temporary, seasonal and full-time employees during peak season. Facilitate training sessions on sexual harassment prevention for managers and supervisors.

Regional HR Representative**09/2004 – 07 2008*****Nike, Inc., (Apparel & Footwear Distribution), Memphis, TN***

Assisted employees at the Shelby and Winchester facilities with health benefits, 401k, ESPP, FMLA, and payroll issues. Conducted new hire orientation and exit interviews. Coordinated and co-facilitated the yearly benefits open enrollment meetings. Implemented the HR Kiosk in the Memphis facility and helped employees to become self sufficient with HR practices. Assist recruiters with job fairs, phone screens and answered employee questions regarding applying for jobs online. Assist with the yearly compensation and performance management process. Listened to employee concerns and referred employees to appropriate Employee Relations Manager.

HR Generalist**04/2001 – 03/2004*****Marsh, Memphis, TN & San Francisco, CA***

Answer questions for approximately 750 employees regarding benefits, payroll, and worker's compensation and employee relations issues. Recruit non-exempt and exempt staff for various positions. Assist with the new hire orientation process and benefits open enrollment. Responsible for the entry of new hires into the PeopleSoft HRIS system and manage new hire process.

Professional Placement Recruiter***Volt Services Group, Concord, CA*****08/1999 – 04/2001**

Source candidates using the Internet, cold calling and job fairs. Interface with all levels of management and market candidates to new and existing clients. Interview candidates and ensure that skill and career paths were identified. Research companies and obtain detailed job descriptions and recommend salary ranges. Conduct reference checks and drug screen candidates. Negotiate and finalize direct hire fees and provide total client satisfaction. Billed over \$75,000 in first four months.

EDUCATION

Master's in Business Administration Degree, University of Phoenix – Memphis, TN

Bachelor of Science in Management Degree, University of Phoenix - Online

SHRM – Essentials of Human Resource Management Certificate – University of Memphis

COMPUTER SKILLS

Microsoft Office, PeopleSoft, ADP, Paychex, Lawson, Kronos, Email, Outlook, Taleo

Brandon E. Wooldridge

4505 Stony Point Drive
Memphis, TN 38141
brandonwooldridge@skbfm.com
901-236-2393

Objective

Dedicated service professional seeking a challenging position that requires leadership abilities with emphasis on teamwork. A self-motivated, reliable worker with the ability to quickly learn new concepts and skills. Background includes solid work history in managing facilities maintenance.

Managed K-12 facilities maintenance programs
K-12 training and compliance management
Manage maintenance operational activities of airport facilities
Excellent communication and follow through
Assist with OSHA, Blood Borne Pathogen and Worker's Compensation training
Leadership development

Work Experience

Jan 2017– Current **SKB Facilities & Maintenance, Inc.** **Memphis, TN**

Regional Operational Manager

Ensure successful property operations of various locations including Memphis International Airport
Manage overall financial performance by controlling expenses
Communicate effectively /regularly with management to provide updates on community operations.

Mar 2011– Jan 2017 **SKB Facilities & Maintenance, Inc.** **Memphis, TN**

Operational Manager

Manage operational activities of assigned accounts
Prepares performance objectives for subordinates and bring training to site
Implements strategies for maximizing efficiency and decreasing cost of work sites.

Mar 2010– May 2012 **General Building Services** **Memphis, TN**

Area Manager

Responsible for entire warehouse facility cleaning operations, including assigning tasks to employees.
Order and issues supplies and equipment as required for job assignments
Conducts regular inspections of areas

Work Experience

Nov 2006– Feb 2010

Service Management Systems

Memphis, TN

Supervisor/Area Manager

Managed cleaning crew at the Memphis Airport Facility with an approach of service, quality and safety
Assist manager with consistent quality of work within company budget
Monthly inspections within facility with operational managers

May 2001– Nov 2006

Facilities Maintenance Experts

Memphis TN

Floor Attendant/ Supervisor

Assignments included but not limited to floor maintenance activities at Memphis Airport Facility
Train new associates and oversee on-going training and performance of existing associates
Conducts regular inspections with department manager

Education

1996-1999

Sheffield High School

Memphis, TN

James M. Bishop
3840 Argonne Street
Memphis, TN. 38127
901-239-5163
Bishopj0227@gmail.com

Job Objective: To secure a position with a reputable company in which to exercise my knowledge and training as a Facilities Supervisor/ Overseer.

Highlight Qualifications:

- Knowledge and Application of General Maintenance
- Knowledge of Housekeeping practices and safety
- Operate all cleaning/ floor equipment
- Experience in distribution of materials and resolving all issues
- Thorough knowledge of Electric/ Heat and Air Repair
- Ability to professional communicate with vendors
- Ability to provide excellent and professional customer services
- Proficient in Microsoft Office Applications

Professional Experience:

Operations Manager/ Floor Manager
SKB Facilities & Maintenance
Memphis, TN
May 2015-Present

- Coordinate, and maintain the operation and reliability of contracted facilities.
- Establish and monitor preventative maintenance processes, program and facility inspection processes for on-going review of maintenance work by agencies having jurisdiction.
- Supervise administrative services skilled and technical/support staff. Hire, evaluate, train, discipline and recommend dismissal of staff as necessary.
- Develop, recommend, and administer policies, procedures, and processes in support of grounds and building maintenance operations; implement and monitor compliance with approved policies, procedures, and processes.
- Administer procurement and fiscal management activities associated with building and grounds maintenance activities, which may include: contracts for custodial, grounds and maintenance related work to acquire trades and professional assistance; monitoring spending on project and cost account basis; recommending and implementing corrective spending plans; reviewing and authorizing purchase orders; administering contracts; obtaining price quotes and bids; purchasing and approving employee purchases; ensuring compliance with college and public purchasing rules; and/or, performing other related activities.
- Serves as the point of contact for the department for code compliance issues, accessibility improvement projects, and/or other code related issues.
- Update and maintains a list of District facilities equipment, including life-cycle and replacement costs.
- Monitor and oversee the work of external contractors to ensure terms of agreements are met and work is completed satisfactory.
- Participates in the development and administration of grounds and building maintenance budget; coordinates the allocation of resources following budget approval; recommends approval of expenditures.
- Participates in/on a variety of meetings, committees (including chairing), task forces, and/or other related groups to communicate information regarding services, programs, areas of opportunity, and/or other pertinent information as appropriate.
- Serves as a liaison with other departments within the organization, and external agencies in order to provide information on available resources, projects, and/or services.

- Ensured that payroll was entered accurately and submitted in a timely manner
- Manage a total of 8 managers, 20 supervisors, 15 floor techs, and oversee 250 employees
- Maintain and monitor QC inspections, measure potential contracts, and submit bids for new contracts.

Operations Manager/ Floor Manager
SKB Facilities & Maintenance/ Memphis International Airport
Memphis, TN
January 2015 – December 2017

- Maintain day-to-day floor work in the Memphis International airport area (Including but not limited to stripping, buffing, and waxing floors)
- Produce weekly schedules for the floor crew employees in a timely manner
- Ordered supplies and equipment needed for maintenance of the facilities
- Handle day-to-day operations for 2nd and 3rd shifts

Area Manager/ Floor Manager
SKB Facilities & Maintenance
Memphis, TN
March 2013- May 2015

- Organized maintenance of floors in all contracted buildings at different locations (Including but not limited to stripping, buffing, and waxing floors)
- Oversee the janitorial services of all contracted facilities at different locations
- Hired floor technicians and for janitorial services of all contracted sites
- Managed in a proactive manner; records of supply distribution and gas mileage
- Produce weekly schedules for the floor crew employees in a timely manner
- Ensure that payroll was accurate and submitted in a timely manner
- Interact with customers on a daily basis to obtain feedback on services and special requests

Facility Attendant Supervisor
Southern College of Optometry
February 2012- January 2013

- Floor Maintenance (Including but not limited to stripping, buffing, and waxing floors)
- Maintain day-to-day floor work (which includes carpet/hardwood floors, VCT tile, and grouted floors)
- Fulfill the duties of other team members in their absence in conjunction with prior assignments
- Transport equipment upon requests

Team Leader
American Building Maintenance
Memphis, TN
March 2010- March 2013

- Transport supplies to different facilities
- Assumed supervisor responsibilities in the absence of the assigned supervisor
- Maintain floors in all contracted buildings at different locations (including but not limited to stripping, buffing, and waxing floors)
- Overseer of a team of eight (8) members
- Managed records of supply distribution and gas mileage
- Enter and submitted payroll for team in a timely manner

Floor Team Leader

Sanitor

Memphis, TN

January 2008-June 2010 (Part-time)

- Maintain floors in a local hospital (Including but not limited to stripping, buffing, and waxing floors)
- Coordinate and supervised the daily activities of operations
- Maintain positive employee relations
- Ensure that payroll was accurate and submitted in a timely manner

APS

Lead Floor Supervisor/ Memphis International Airport

Memphis, TN

November 2004-November 2007

- Maintain day-to-day floor work in the Memphis International airport area (Including but not limited to stripping, buffing, and waxing floors)
- Ran the propane buffer, riding scrubber, T12, T7 and carpet shampooer
- Overseer of team members (assigned schedules, monitored, and evaluated work for quality)

General Maintenance

Quarles Building Maintenance

Memphis, TN

November 2004-November 2007

- Maintained floors in large office buildings (Including but not limited to stripping, buffing, and waxing floors)
- Maintain day-to-day floor work (which includes carpet/hardwood floors, VCT tile, and grouted floors)

SMS

Floor Supervisor/ Memphis International Airport

Memphis, TN

November 2002-November 2006

- Maintain day-to-day floor work in the Memphis International airport area (Including but not limited to stripping, buffing, and waxing floors)
- Ran the propane buffer, riding scrubber, T12, T7 and carpet shampooer
- Overseer of team members (assigned schedules, monitored, and evaluated work for quality)

Supervisor Maintenance

First Baptist Church

Memphis, TN

January 2003-July 2009

- Ordered supplies and equipment needed for maintenance of the facilities
- Overseer of a team of ten members (Scheduled, assigned, monitored, and evaluated work for quality)
- Submitted department payroll in a timely manner
- Contracted outside vendors as needed
- Maintained the up keep of the facilities (Plumbing, electric, air and heat)
- Floor maintenance (Include stripping, buffing, waxing, extracting, carpet cleaning)
- Repair and trouble shoot problems at the facilities.
- Trouble-shoots and responds to after-hour issues as needed regarding the operational aspects of the facilities such as HVAC issues, fire alarm malfunctions, electrical outages, water leaks, etc.

General Maintenance**First Baptist Church****Memphis, TN****February 2001- January 2003**

- Maintain the up keep of the facilities (Plumbing, electric, air and heat)
- Floor maintenance (Including but not limited to stripping, buffing, waxing, extracting, carpet cleaning)
- Repair and trouble shoot problems of the facilities

Education**Treadwell High School****1987-1990****Memphis, TN****General Education Diploma****References**

~Upon Requests~

Terry Cobb
(901) 591-5351
Cobb580@gmail.com

PROFESSIONAL OBJECTIVE

Facilities Maintenance • Operations Management • Environmental Services Manager

A results-oriented professional with extensive management experience. Skilled at partnering with all levels of leadership to drive business results. Combines strong planning, organizational and communication skills with the ability to work in a fast-paced environment. Excellent problem-solving skills; creative and resourceful in resolution. Always exceeds performance criteria and assumes additional responsibilities. Strategic thinker who practices hands-on management; role models an effective leadership style and professional techniques. A well-rounded performer committed to continued excellence.

Core Competencies

- Regulatory Compliance
 - Resource Utilization
 - Customer Focused
 - Flexible & Versatile
 - Time Management Skills
 - Hiring & Training Skills
 - Highly Organized
 - High Integrity
 - Team Player/Team Leadership
-

PROFESSIONAL EXPERIENCE

METHODIST UNIVERSITY HOSPITAL, – Memphis, TN

Supervisor: March 2008- July 2016

Shift Manager: July 2016- Present

- Train staff on proper application and upkeep of hospital floor care. **(Both 2nd & 3rd shift)**
- Inspect and check the work of employees to ensure proper cleaning/disinfecting techniques and adherence to cleaning schedules. **(Both 2nd & 3rd shift)**
- Monitors Environmental Services departmental budget, equipment, and inventory. **(Both 2nd & 3rd shift)**
- Maintains current knowledge of Environmental Services processes and procedures and ensures compliance with quality standards. **(Both 2nd & 3rd shift)**

Key Accomplishment:

Commended for exceeding hospital expectations for maintaining proper floor care.

Managed successfully department overtime.

*Received **Tier 1 score** each year of employment with the organization on the AFS Scores. **(Associate Feedback Survey)***

GENERAL BUILDING SERVICES – Memphis, TN

2002 – 2013

Area Manager

- Managed the day to day facility operations of area casinos.
- Maintained financial management for all departmental contracts.
- Sustained high level of cleaning exceeding customer's expectations.
- Initiated and completed the recruitment, hiring and training of all building service positions.
- Interfaced with compliance personnel for annual compliance audits.

Key Accomplishment:

- *Successfully led effort in securing multiple outside contracts.*

FACILITIES MAINTENANCE EXPERTS (Memphis International Airport – Memphis, TN

2007 – 2008

Site Supervisor

- Directed and managed the night shift.
- Provided leadership and support to Project Managers in hiring, training, and staff development.
- Assisted staff in stripping, waxing, scrubbing and recoating all Terrazzo floors

Key Accomplishment:

- *Received exceptional evaluation from Management including the maximum raise.*
- *Propelled physical appearance of all floors and bathrooms in Memphis International Airport.*

AMERICAN BUILDING MAINTENANCE— Memphis, TN

1999 – 2001

Project Manager

- Managed twenty-two building maintenance staff.
- Led transformation of Northwest Airlines facility maintenance.
- Expanded services into service gates, ticket counters, and office areas.

Key Accomplishments:

- *Increased contract services and company revenue by providing outstanding service.*
- *Always received exceptional evaluations receiving maximum raises.*

F.P.G. MMANTEC, INC.— Memphis, TN

1990 – 1999

Hub Manager

- Overseer of one hundred and twenty employees.
- Implemented a level of series cleaning at the Memphis FEDEX Hub.

Key Accomplishments:

- *Assisted management in representing company to secure FEDEX contract.*

EDUCATION

RICE COLLEGE – Memphis, TN

Completed Two Years

NORTHSIDE HIGH SCHOOL – Memphis, TN

High School Diploma Completed

COMPUTER SKILLS

Windows · Microsoft Word · Excel · PowerPoint · Internet Explorer · Outlook

PROFESSIONAL CERTIFICATIONS/ACCOMPLISHMENTS

Leading the Quest

(leadership/management certification completed)

From Good to Great

(leadership/management certification completed)

Service Master Floor and Tile Certification

Boys & Girls Clubs of Memphis

Youth of the Year

Achievement Award

TRU-D Smart UVC

Trashundra Ester

***4354 Boeingshire Drive
Memphis, TN 38116
901-315-8554
trashundraester@gmail.com***

Objective

I am hoping to acquire a position that will allow me to display my experience and knowledge as an administrative support personnel.

Skills

- **Organizational Skills**
- **Strong Customer Relations Skills**
- **Staffing and Recruiting**
- **Payroll Processing**
- **Microsoft Word, Excel, and Outlook**
- **Data Entry**
- **Word Processing and Typing 40wpm**
- **Filing**

Experience

Office Manager

Jan 2014-present

SKB Facilities & Maintenance Memphis, TN

As the Office Manager I am responsible for ensuring the efficient operations of the office and administrative functions, as well as providing administrative support to the CEO and Vice President. I recruit and process new hires for all accounts. I compile and keep personnel records. I process payroll semimonthly. I also create HR forms and reports as needed, schedule meetings, host orientations, and other HR functions.

Administrative Assistant

Jul 2011-Aug 2013

APS Facilities & Maintenance Memphis, TN

As the administrative assistant for APS I provided administrative support to the CEO, VP, and other department managers. I answered multi- telephone lines promptly and courteously. I maintained calendars, coordinated appointments, meetings, and travel arrangements.

Receptionist

Jan 2013-Apr 2013

H&R Block

Memphis, TN

I answered telephone inquiries in a timely and courteous manner. I was responsible for answering customer's inquiries as it related to their tax services. I was accountable for greeting all visitors in a pleasant and professional manner. I also scheduled appointments, filed client paperwork, and received customer payments.

Quality Control Associate

Sept 2009-Jul 2010

Brother International

Memphis, TN

As a quality control associate my duties were accurately examining quantity of commercial products. I also reported shortages, damages, and shipment errors.

Office Assistant

Nov 2006-Aug 2009

AME Services, Inc

Memphis, TN

I provided administrative support to the project manager. I answered multi- line phone systems, screened calls, and referred callers to the appropriate personnel as necessary. I scheduled and attended meetings.

Mortgage Assistant

Sept 2005-Nov 2006

Sunset Mortgage

Memphis, TN

I was responsible for providing administrative support to the Branch Manager, loan officers, and underwriter team; by ensuring the timely, and accurate processing of mortgage applications. I reviewed and verified the borrowers' income, credit reports, employment history, property appraisals, and title insurance information; to prepare loan applications for underwriting submittal. I confirmed that the mortgage applications were in compliance with company policies, underwriting guidelines, and lending-program requirements.

Education

June 1998	Diploma	Fairley High School
June 1999-2002		University Of Memphis
August 2015-present		Liberty University Online

References

References are available on request.

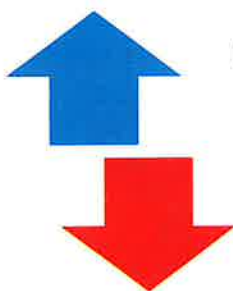
15.6.1.1

SKB works to establish a quality culture that focuses on customers, performance and continuous improvement. To achieve our goals, we employ a quality system that places a variety of processes into a single platform. OrangeQC (SKB's Quality Management System) is introduced to our new customers as a starting point from which to customize the facility to measure quality throughout the contract. Our quality management system is accessible online to our customers 24/7/365. OrangeQC allows SKB to track Key Performance Indicators, ongoing problem areas and track inventory levels. Any emergency situation can be recorded into the system with comments and/or photos. All findings will be communicated to the Authority through email and/or our Quality Management System. SKB will then train each individual identified by the authority on how to work the system via a hand-held device or computer. All work orders or complaints will be addressed within 24 hours; moreover, all tickets are expected to be addressed and closed with comments and/or pictures.

15.6.1.2

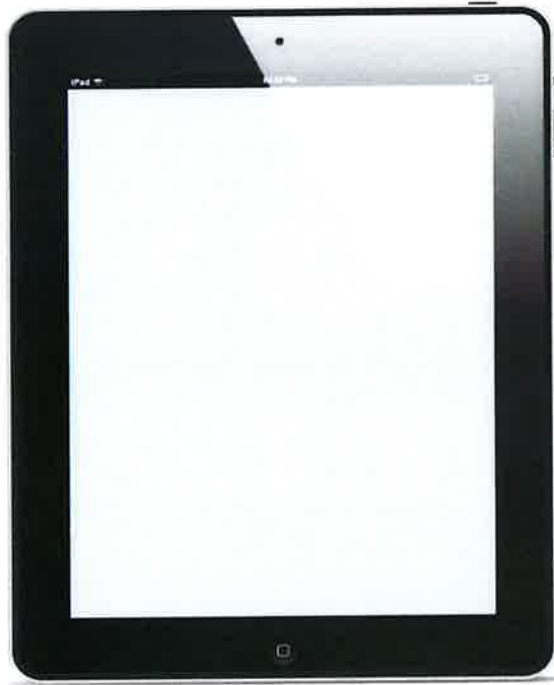
OrangeQC is the interactive platform that SKB uses to successfully manage our communications. With OrangeQC, the authority will receive complete visibility of inspections, reports, scheduling and data collection with our interactive cloud-based platform. The comprehensive tool allows us to manage our services more efficiently while providing you with real-time reports and meaningful charts on demand. Along with daily personal interaction, SKB managers will update projects, reports, deficiencies and schedules through the hand-held device on one common platform. All supervisory staff will be briefed at the beginning of each shift with any issues or concerns that have been identified through the work order system. Any safety concerns, security measures or zone management issues that have been identified at the Memphis International Airport will be communicated and resolved.

SKB's Culture ensures that:



Quality Goes UP!

Complaints Go Down!



Quality Control Procedures

SKB's Quality Management System utilizes streamlined methods to perform and manage janitorial inspections online. Through the application, users can perform inspections on mobile devices, attach photos, and submit tickets (work orders) which will be emailed to your team immediately, and track corrective actions in real time. In addition, it schedules inspections, which creates a to-do list for inspectors so they know exactly what is expected for the day.

The application allows users to:

- Perform inspections offline, which sync when online
- Create tickets offline as well
- Add photos and comments to line items
- Track GPS coordinates in each inspection
- Add comments to tickets
- Create to-do list for inspectors
- Automatically notify clients when an inspection is performed

15.6.1.3

SKB utilizes our 5-Step Corrective Action Performance plan to address quality issues:

1. Identify the problem

SKB makes sure everyone knows the exact nature of the problem. We document the problem in clear terms that employees can understand, and explain the impact of the quality problem. We also like to get feedback from the employee. We want to make sure we clearly define the issue to ensure a quality solution.

2. Identify the root cause

At SKB, our process identifies the root cause of the problem by clearly defining the task, expectations and required results and identifying which process requires improvement.

3. Determine alternatives and impacts

Once the cause is identified, SKB looks at the alternatives and the impact of each alternative. Although it's best to try to remain consistent in our processes, we understand that sometimes that is not possible. In these instances, SKB will look at alternatives that will ultimately resolve the problem.

4. Execute the Plan

A plan is put into place to address the quality problem and/or implement an alternative. These activities should be moved into the work plan to ensure that they are performed.

5. Monitor

The resolution plan is closely monitored to ensure that the quality has improved as expected. If the quality has improved or is moving in that direction, we allow the plan to continue. However, if the quality is not improving as expected, further corrective action may be required. We will also communicate to the Authority the results of what was identified and addressed. The Corrective Action Performance plan will be documented and communicated.

15.6.1.4

- SKB will be utilizing Key Performance Indicators, score cards, supervisor pass-down logs as our primary tools to meet and exceed the Authority's objectives.
- OrangeQC will be the technology that SKB will be using to communicate, deliver and monitor the Authority's objectives.
- SKB will purchase state of the art equipment to ensure that carpet, tile and terrazzo floor care objectives are met nightly, weekly, quarterly and annually.

15.6.1.5

Currently, SKB provides janitorial service on the 2nd shift at Memphis International Airport; as well as maintaining all terrazzo flooring, carpet and tile throughout the facility on 3rd shift. Memphis International Airport is the facility that provides the most cleaning challenges when traffic flow is heaviest. SKB is able to meet standards in this type of environment by: 1) monitoring and inspecting procedures to measure the effectiveness of cleaning, 2) using the results of the inspections to assess and improve cleaning processes and products. We find that continuous training, team huddles, safety talks and detailed checklists help meet operational and cleaning standards.

15.6.1.6

After reviewing the RFP with my team, we feel that our greatest challenge (in the first 30 days) will be transitioning and training current employees and changing the management culture. Quality, safety, communication and training processes have been designed to immediately meet these challenges of:

- Unplanned spills
- Security
- Unscheduled downtime that has been communicated to SKB by the Authority
- Transition Plan (in the first 30 days) – this will include communication with the authority, SKB and current vendor to facilitate a smooth and successful transition

15.6.2.1

OrangeQC is the real-time ticketing and mobile work order system that SKB will be utilizing at Memphis International Airport. With OrangeQC, SKB is able to streamline communication with the Airport Authority.

With OrangeQC, everyone on your team knows who's responsible for what. You'll be able to check on the status of any issue from the site, so you'll know when problems come up—and when they've been resolved.

Orange QC is a very user-friendly and most efficient tool when it comes to tracking quality. With our dashboard, you will be able to logon and identify any issues that may need to be addressed or have been recently resolved. SKB will use the real-time, online system to communicate accurate and timely decision-making data to the Authority.

15.6.2.2

All inspection results, inventory reports and/or general information will be communicated through OrangeQC. This will take place by an email (sent through the OrangeQC system) or mobile and/or hand held device. SKB will provide credentials to anyone the authority identifies; this will allow those individuals the ability to receive all communications from the SKB's management team.

15.6.2.3

To set effective Performance and Management Goals, SKB will use the information provided by the Authority to:

1. Set individual and team objectives that are aligned with the Authority's objectives
2. Assist SKB in establishing a system that allows us to measure quality
3. Award and recognize desired performance

15.6.2.4

SKB has extensive experience working with the Collierville School District using our Asset Management system. Typically, when a building manager initiates a request using our Quality Management System, SKB receives the request or results on our hand-held device or computer. Once the ticket or request has been completed, the building manager and/or designee will receive a closed ticket or completion email from the system with comments from the SKB manager who completed or oversaw the request. SKB proposes that all requests are made through OrangeQC. Our policy is to resolve all requests that have been made and/or entered by the Authority within 24 hours. Making requests via our Quality Management System allows us to track the time it takes to resolve issues or complaints. This will also allow SKB to identify problem area(s) and ongoing issues through reports generated by the system.

15.7.1.1

It is SKB's policy to meet and or exceed every tenant's expectations as it pertains to quality, safety and customer service. As a contractor at Siemens industry, SKB currently provides janitorial service from 5:00am – 10:00pm daily. Siemens warehouse is a 600,000sqft facility that has 3 shifts Monday – Friday from 6a-2p, 2p-10 & 10p-6a. Siemens rents out a small conference room, shipping office and truckers lounge to a company called Nima. The space that Nima rents from Siemens is located in the rear of the warehouse; moreover, this area **was not** contracted to be cleaned by SKB from 8p-8a. The manager for Nima (who reports to work at 5:00am) would complain that SKB was not cleaning the restrooms nightly. Often after SKB left for the night, Truck drivers gained access to the restrooms, unbeknownst to the Nima manager. After speaking with the night cleaner and having an area manager report nightly to the facility to perform quality assurance inspections, SKB requested a meeting with the Siemens facility manager and the Nima manager. We presented the managers with a week of inspections and pictures of the restrooms with notes of the time and dates. After the meeting and some discovery by the Nima manager, Siemens requested that we change our schedule to our current schedule which is 6a – 10p. Before the findings SKB was working an 8:00am – 8:00pm schedule.

15.7.1.2

SKB leadership team understands that working with the public often presents challenges. Basic steps that our leadership team must take if handling a complaint from the traveling public include:

1. Isolate the individual and listen to the his/her concerns to gather information
2. Stay calm
3. Show personal interest in the problem
4. Give the individual our undivided attention and do not place blame on any one individual
5. Write down the key facts! This will help assist in any corrective action or retraining
6. After speaking with the individual, the manager then investigates the complaint
7. SKB would take appropriate training, retraining or corrective action steps with the employee(s)

15.7.1.3

Later in this proposal, you will see that SKB has built in a utility/trash employee to work in the gate area along with the male/female cleaners who will be working in each concourse and terminal. This employee would give us the latitude to deal with any increase of passenger volumes in the A & C concourses on peak days to assist in monitoring spills and trash. SKB would do a time-and-motion study to see if any employee schedules or routines would need to be revisited if passenger volume increases drastically for an extended period of time.

If passenger volumes decrease, we would also do a time-and-motion study to see if employee schedules and/or cleaning frequencies could be increased.

15.7.1.4

SKB has regular, planned communications with customers, subcontractors, and suppliers to coordinate quality expectations, priorities, activities, and improvements.

The process begins when we hold an expectation meeting where we discuss how quality of the contract will be controlled and the quality responsibilities of key personnel. We also coordinate a schedule for weekly operation meetings, and monthly quality management meetings.

Throughout the contract, SKB holds regular performance meetings to discuss tasks, or phases of work. These meetings are attended by key company, subcontractor personnel responsible for carrying out, supervising, or inspecting the work, and interested customer representatives. We review quality requirements, coordinate quality inspections. In the process, we listen to each stakeholder to understand their concerns regarding critical details. We add the critical details to inspection checklists and continuously train operation personnel on these details in our weekly safety talks and team huddles.

Our team huddles deploy findings of the management meeting to our employees. The venue is used to train personnel on technical requirements, reinforce critical details for heightened awareness, and institute improvements to work methods. It is also a forum for team communications and coordination.

15.7.1.5

SKB Facilities & Maintenance prides itself in providing total customer satisfaction. We believe strongly in our Mission Statement: “To create a brand new appearance for our customer, every day!” We make sure the job is done right the first time. Our goal is to exhibit a spirit of fairness, dedication, honesty, reliability and respectability at all times, to all we serve. We know that customer service differentiates us from our competition, so we go above and beyond to make sure our customers receive the service and dedication they are paying for. No matter how big or small our customers may be, everyone is treated with the respect they deserve.

All SKB employees are required to go through a two hour video & handbook orientation, which not only goes over all SKB policies and procedures, it covers our emphasis on Customer Service. We read Our Mission Statement to our employees and discuss in detail the meaning of Customer Service and what is expected of our employees daily. This message is reinforced by our Area Managers who come in contact with employees daily.

SKB’s goal is too continuously provide excellent customer service. To achieve this, we are committed to providing both a professional and focused work environment. Each individual plays an important role by gaining resourceful knowledge and innovative ideas targeted toward achieving excellent results for our customers, with a lasting emphasis on quality workmanship and a commitment to customer satisfaction. SKB has become a trusted leader in the professional cleaning industry in the Memphis market. SKB is committed to meeting the Authority’s expectations.

15.7.1.6

As previously stated, all employees are initially trained in Customer Service during our orientation process. We go over our customer's expectations in detail and make sure all employees understand the process. We also ask our employees what "Excellent Customer Service" means to them and ask them for examples. By asking questions we are able to make sure our employees know what we are looking for from a service standpoint. SKB uses a series of videos to train our employees. Although we are a commercial janitorial company we understand the importance of Customer Service and we have incorporated a Customer Service training videos into our training program. We go the extra mile to make sure all aspects of Customer Service are covered.

SKB understands that well-managed complaints can benefit our business, and we've learned to see complaints as an opportunity to build strong, lasting relationships and improve our customer service. Customer complaints give us valuable information about how we need to improve.

SKB does four types of Customer Service Training:

- During the initial new hire orientation, customer service training is one of the training modules that all employees go through. The video-based training is part of our 2.0+ hour training.
- After the initial orientation, each employee has "hands on" training at our facility where customer service is also a talking point of the training
- Once an employee reports to the site, the onsite manager or supervisor trains with the employee to discuss his or her duties and responsibilities. Customer Service is also part of this training which happens on the first day that the employee reports to the site.
- During our daily and weekly safety talks, customer service is also an ongoing talking point which is covered with all employees during a team huddle

*** NOTE: in our staffing model, a .30-minute shift overlap has been built into each shift schedule. This is the window that has been established for customer service, security and safety talks within team huddles.

15.7.1.7

One of the Project Manager's duties and responsibilities will be to communicate with a designated member(s) of the Airport Authority daily to gauge any issues or concerns. It is SKB's expectation that all information that the Project Manager gain from meetings with the Airport Authority be disseminated down to the employees via pass-down logs, email or team huddles.

15.7.1.8

SKB strongly believes that the most effective approach to performance management involves setting clear expectations for the employee and/or company performance. This approach begins with good leadership and fair supervision at all employment levels. SKB prides itself on providing excellent customer service at all times. We believe in having an effective training program that covers customer service and all aspects of quality control which will minimize customer complaints. SKB depend on leadership team, which ensures that our policies and procedures are enforced, to communicate all issues to our Human Resource Manager. At that time, our 4 step corrective action process will begin. All policies and procedures are communicated through team huddles and/or safety talks.

15.7.1.9

Quality Control Plan on following pages



SKB Facilities & Maintenance

Quality Assurance/Quality Control Plan

Memphis International Airport

18-0007

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CONTRACT-SPECIFIC JANITORIAL SERVICES QUALITY PLAN

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A. SKB FACILITIES & MAINTENANCE QUALITY POLICY

SKB Facilities & Maintenance is committed to quality. Our objective is to safely deliver 100 percent complete janitorial contracts that meet all contract and customer expectations the first time, every time.

Our commitment to quality means:

- Every SKB employee is responsible for fully implementing and complying with all provisions of the SKB's quality system.
- Our quality standards meet or exceed all applicable regulations, codes, industry standards, and manufacturer specifications as well as with our customers' contract and individual requirements.
- We stand behind our work. We inspect every work task to assure conformance to the contract requirements. Should problems be found, we correct them.
- We are always improving. All employees receive regular training to make systematic improvements to remove quality risks and enhance quality performance.

We conduct our work with dignity and respect for the customer, our subcontractor and supplier partners, and ourselves.

B. KEY ELEMENTS OF THE JANITORIAL SERVICES QUALITY PLAN

Key elements of the SKB's Quality Assurance/Quality Control Plan include:

Quality Management and Responsibilities. SKB fully integrates its quality management system into the organizational structure and performance management systems for each contract. We:

- Maintain a documented quality system consisting of a quality manual with policies and procedures.
- Tightly control exceptions to the quality system so company standards are applied uniformly to every contract
- Systematically maintains quality system documents and records.

Quality Control Personnel. SKB fully integrates its quality management system into the organizational structure and performance management systems for each contract. We:

- Appoint a Quality Manager, Supervisor, and Contract Manager to each contract, each with well-defined quality responsibilities and the authority to carry them out.
- Have well-defined quality responsibilities for every employee with specific quality responsibilities for key job positions.
- Plan contract quality records and documentation that will be maintained.
- Tightly control exceptions to the quality system so company standards are applied uniformly to every contract
- Enforce policies that monitor work conditions before and during work so that quality results are assured.

Contract Quality Coordination and Communication. SKB tightly controls the maintenance process to ensure quality results. We:

- Plan quality communications through meetings, reporting requirements, and points of contact.
- Have a contract startup meeting to communicate contract goals and expectations.
- Conduct preparatory meetings in advance of each scheduled work task to communicate requirement details and coordinate work activities.

Quality Assurance Surveillance. SKB audits the quality system to assure it is operating effectively. We:

- Audit the operation of the quality system on each contract for conformance to the Contract Quality Assurance/Quality Control Plan and SKB's Quality System requirements.
- Conduct annual company-wide audits to evaluate effectiveness of the SKB's Quality System and improve its operation.

Employee Qualifications. SKB ensures that only knowledgeable, capable employees carry out the planning, execution, and control of our contracts. We:

- Identify employee qualification requirements, including training qualifications, responsibilities, and authority for each job position.
- Train field employees on quality standards and procedures for their job position.
- Validate employee capabilities before they are assigned to carry out quality job responsibilities.

- Review ongoing employee qualifications and evaluate quality practices and performance as part of the employee performance management process.

Qualification of Subcontractors and Suppliers. SKB purchases only from subcontractors and suppliers that consistently meet SKB's standards for quality. We:

- Clearly define outside organization qualification requirements including licensing requirements, compliance with specific quality standards, quality responsibilities, qualification of personnel and quality improvement processes.
- Validate capabilities to meet contract quality requirements at planned operation levels.
- Verify ongoing quality performance.

Contract-Specific Quality Standards. SKB clearly defines standards and specifications that apply to each contract. We:

- Identify all relevant regulations, codes and industry standards.
- Identify specifications for materials that meet contract as well as regulatory requirements.
- Specify quality and certification requirements for materials and equipment that affect quality.
- Identify special requirements for calibration of quality measuring devices.
- Supplement the contract and published standards with SKB's quality standards as required to reduce quality risks and assure quality results.

Inspection Plan. SKB quality inspection processes ensure that all work activities comply with the documented standards and specifications. We:

- Identify inspections required by contract specifications and industry standards.
- Record the result of each quality inspection.

Work Task Quality Inspections. SKB quality inspection processes ensure that all work activities comply with the documented standards and specifications. We:

- Identify required quality inspections and key milestones during the contract.
- Identify each work task that is subject to a series of quality inspections and quality control activities
- Conduct a series of quality inspections for each task: before work begins, at first article completion, while work is in process, and at completion.
- Inspect all machinery before use.
- Record the result of each work task inspection.

Quality Control of Corrections and Nonconformances. SKB nonconformance control processes ensure that we prevent all nonconformances from cover-up, inadvertent use, and corrected. We:

- Mark the item to clearly identify it for correction.
- Make corrections in a timely manner and validate their effectiveness.
- Require customer approval before accepting any nonconforming items.
- Identify nonconformance items for future prevention.
- Address nonconformance causes systematically by updating standards and specifications; improving process and employee capabilities; setting new requirements for outside organizations; and enhancing the effectiveness of field and third party quality inspections.
- Validate actions taken to prevent nonconformances and their effectiveness.

Contract Completion Inspections. SKB conducts a series of inspections near the completion of major milestones and end of the contract to assure that the contracted work is completed to specifications. We:

- Perform a rigorous inspection by senior managers independent of operation.
- Correct any deviations and reinspect prior to submittal to the customer for final review.
- Participate in the customer's final inspection to quickly address any issues found.

C. CONTRACT QUALITY COORDINATION AND COMMUNICATION

SKB has regular, planned communications with customers, subcontractors, and suppliers to coordinate quality expectations, priorities, activities, and improvements.

The process begins when we hold an expectation meeting where we discuss how quality of the contract will be controlled and the quality responsibilities of key personnel. We also coordinate a schedule for weekly operation meetings, monthly quality management meetings, and protocols for telephone and internet communications.

Throughout the contract, SKB holds preparatory meetings prior to the start of upcoming milestones, tasks, or phases of work. These meetings are attended by key company, subcontractor personnel responsible for carrying out, supervising, or inspecting the work, and interested customer representatives. We review quality requirements, coordinate quality inspections and hold points. In the process, we listen to each stakeholder to understand their concerns for critical details. We add the critical details to inspection checklists. We also train operation personnel on these details in weekly and janitorial talk meetings.

SKB weekly team janitorial meetings deploy findings of the preparatory meeting to our employees. The venue is used to train personnel on technical requirements, reinforce critical details for heightened awareness, and institute improvements to work methods. It is also a forum for team communications and coordination.

SKB Facilities & Maintenance Point Of Contact List

Version 20131118

Contract ID	Contract Name	Preparer	Date
18-0007	Memphis International Airport	SKB Facilities & Maintenance	TBD

Company	Name	Job Position(s)	Phone Contact Numbers	Email
SKB Facilities & Maintenance	Shone Bynum	President	901-791-2162	shone@skbfm.com
SKB Facilities & Maintenance	Brandon Wooldridge	Contract Manager	901-791-2162	Brandon.wooldridge@skbfm.com
SKB Facilities & Maintenance	TBD	Supervisor		
SKB Facilities & Maintenance	James Bishop	Quality Manager	901-791-2162	jbishop@skbfm.com
SKB Facilities & Maintenance	Kelley Bynum	Safety Manager	901-791-2162	kelley@skbfm.com

SKB Facilities & Maintenance Contract Quality Communications Plan

Version 20131118

Contract ID	Contract Name	Preparer	Date
18-0007	Memhis International Airport		

Distribution of contract organization chart and assigned responsibility and authority of the Contract Manager, Quality Manager, and Supervisor:

Project Manager

Points of contact list distribution:

Project Manager

Contract startup meeting participants, date, location:

Project Manager

Work task quality plan meeting participants, nominal location:

Project Manager

Weekly contract communication meeting participants, and nominal day of week, time, and location:

Project Manager

Daily quality report distribution, frequency, and due date:

Project Manager

Monthly contract quality status report distribution and due date:

Project Manager

Distribution of quality inspection and test records, and due date:

Project Manager

Nonconformance report distribution and customer approval authority:



Location of contract quality records storage and point of contact for records access:
Project Manager
Nominal frequency of contract quality audits and the job position that will conduct the audits:
Project Manager
Warehousing of customer supplied materials/equipment location, security, damage prevention.
Project Manager

D. CONTRACT QC PERSONNEL

SKB ensures that quality control personnel remain independent from the pressures of operation through our organizational lines of authority as defined by our QC Organization Chart.

The President appoints a Quality Manager, Supervisor, and Contract Manager, and then assigns each with specific quality responsibilities and authorities of their job position.

CONTRACT QC JOB POSITION ASSIGNMENTS

Table D-1 shows the job positions assigned to personnel on this contract.

Table D-1

QC Personnel Name	Job Position
Shone Bynum	President
Brandon Wooldridge	Contract Manager
TBD	Supervisor
James Bishop	Quality Manager
Kelley Bynum	Safety Manager

DUTIES, RESPONSIBILITIES, AND AUTHORITY OF QC PERSONNEL

The President has overall responsibility for implementation safety including performance and results of the SKB's Quality System, including quality on this project.

QC personnel assigned to this contract have the duties, responsibilities and authority defined by their job position.

Key contract personnel have accepted their appointments and declared their ability to carry out the appointments.

QUALITY RESPONSIBILITIES

CONTRACT QUALITY MANAGER: QUALITY DUTIES, RESPONSIBILITIES, AND AUTHORITY

The Quality Manager is responsible for ensuring the overall effectiveness of the Quality System for a specific contract. Regardless of other duties, the Quality Manager is responsible for:

- Planning contract quality controls required by SKB's quality systems and contract requirements
- Fully implementing all provisions of SKB's Quality System and related documents on the contract.
- Manage the operation of SKB's Quality System on the contract.
- Implement and manage all phases of quality control

- Implement and manage all phases of quality control
- Communicating contract-specific quality requirements to all affected departments, subcontractors and suppliers, and customers
- Ensuring that the Quality System is established and implemented by persons doing work that impacts quality
- Monitoring progress of activities
- Ensuring that the Quality System is maintained
- Acting as the contract quality liaison with parties outside the company on matters relating to quality
- Reporting to senior management on performance of the Quality System, including needed improvements
- Review and approval of all contract Quality System records
- Review and approval of contract quality-related contract submittals
- Managing all contract inspection and quality control activities
- Controlling corrective actions
- Resolving quality nonconformances

The Quality Manager has the authority to:

- Stop work when continuing work may adversely affect quality or cover up a defect
- Prevent the use of equipment or materials that may adversely affect quality or cover up a defect
- Direct the removal and replacement of any non-conforming work, equipment, or material by SKB, any subcontractor, or any supplier.
- Suspend work and/or supply of materials by any staff member, subcontractor personnel, or supplier as deemed necessary to assure quality results.

Alternate Quality Managers acting in the role of the contract Quality Manager have the same quality duties, responsibilities and authority as the contract Quality Manager.

SUPERVISOR: QUALITY DUTIES, RESPONSIBILITIES, AND AUTHORITY

A Supervisor verifies that work performed by subcontractors and suppliers and SKB work crews conforms to SKB quality standards. The President appoints one or more Supervisors for each contract.

A Supervisor has specific responsibilities for:

- Ensuring that work meets government regulatory and code requirements, customer requirements, contract requirements, contract technical specifications, contract drawings, approved contract submittals, and company quality standards and specifications
- Ensuring that subcontractors and suppliers begin work in accordance with SKB start-work policies
- Ensuring that subcontractors and suppliers receive a notice to work only when conditions will not adversely affect quality results
- Conducting quality inspections, tests, and recording findings
- Accurately assessing subcontractor quality and on-time performance
- Ensuring that quality standards are achieved before approving subcontractor or work crew completion of work

The Supervisor has the authority to:

- Stop work when continuing work may adversely affect quality or cover up a defect
- Prevent the use of equipment or materials that may adversely affect quality
- Direct the removal or replacement of any non-conforming work, equipment, or material
- Suspend work and/or supply of materials as deemed necessary to assure quality results

Alternate Supervisor has the same quality duties, responsibilities and authority as the Supervisor. Multiple Supervisors may be assigned to the contract.

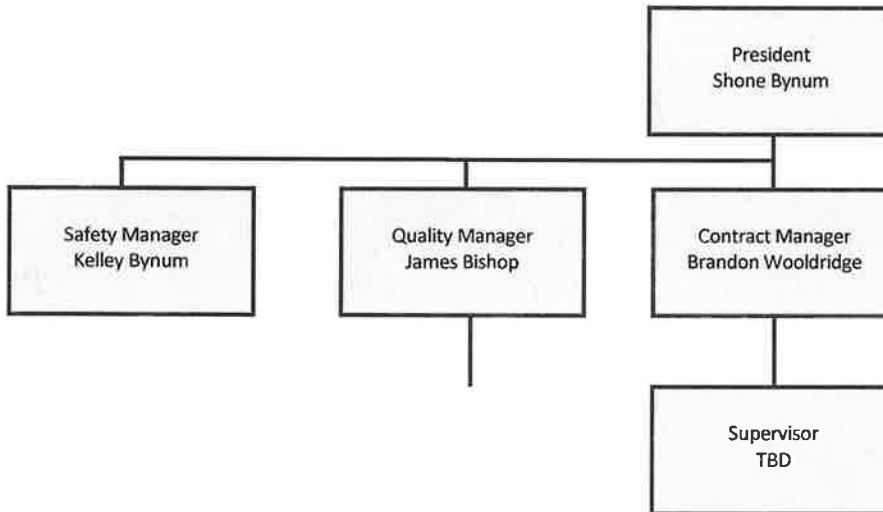
CONTRACT QC ORGANIZATION CHART

The Contract QC Organization Chart shows the QC organizational structure. The chart includes job positions along with the name of each person appointed to that position. Figure A-1 shows the QC Organization Chart for this contract.

The President defines the organization chart for the contract. The organizational chart includes job titles, names of assigned personnel, and organizational and administrative interfaces with the customer. The organization chart defines lines of authority as indicated by solid connection; dotted lines indicate lines of communication. The lines of authority preserve independence of quality control personnel from the pressures of operation.

The President assesses the qualification requirements for each position on the contract organization chart, qualifications of each person, and then appoints only qualified persons to the contract organization.

Figure A-1



E. PERSONNEL QUALIFICATIONS

SKB ensures that only knowledgeable, capable employees carry out the planning, execution, and control of the contract.

We train our employees on quality standards and procedures based on contract requirements as well as their job positions. Then we validate their capabilities before they are assigned to carry out their quality job responsibilities on the contract. Ongoing monitoring of performance continually validates qualifications of each employee.

The Quality Manager qualifies employee capabilities to ensure that they are capable of completely carrying out their assigned quality responsibilities including the following capabilities:

- Knowledge of Company quality standards
- Knowledge of job responsibilities and authority
- Demonstrated skills and knowledge
- Demonstrated ability
- Demonstrated results
- Required training
- Required experience

The Quality Manager also evaluates independent contractor personnel on the same standards that apply to employees.

TRAINING

We train our employees on quality standards and procedures based on contract requirements as well as their job positions. Then we validate their capabilities before they are assigned to carry out their quality job responsibilities on the contract. Ongoing monitoring of performance continually validates qualifications of each employee.

After a training activity is completed, SKB keeps of record of both the training activity and the training participants.

Contract Personnel Resumes

Included in Response

F. QUALIFICATION OF THIRD PARTY INSPECTION/TESTING COMPANIES AND SUBCONTRACTORS AND SUPPLIERS

SKB evaluates outside organizations to ensure that the quality of their materials or services will meet contract requirements, and that they have the capacity and equipment to carrying out the contract on schedule.

Our subcontractors and suppliers meet the contract requirements by either 1) working under the SKB's Quality System or 2) operating their own quality program as long as it meets SKB's Quality System requirements.

Ongoing monitoring of performance continually validates qualifications of each subcontractor and supplier.

Key outside organizations that will be used on this contract are listed on the Subcontractor and Supplier List form. A Subcontractor and Supplier List form exhibit is included in this subsection. The qualifications of listed suppliers have been verified.

QUALIFICATION OF TESTING LABORATORIES

Independent laboratories performing tests or quality inspections have additional requirements for certification by a nationally recognized testing accreditation organization as appropriate for the scope of the inspection or test:

- NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
- NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- The American Association of State Highway and Transportation Officials (AASHTO)
- International Accreditation Services, Inc. (IAS)
- U. S. Army Corps of Engineers Materials Testing Center (MTC)
- American Association for Laboratory Accreditation (A2LA) program

**SKB Facilities & Maintenance
Contract Subcontractor and Supplier List**

Version 20131118

Contract ID	Contract Name	Preparer/ Date
[ProjectNumber]	[ProjectName]	

Work Tasks	Subcontractor and Supplier Name	Description of Services	Quality Control Method (Not Applicable/ Subcontractor and Supplier QC/ [CompanyName] QC)	Remarks
Supplier	Action Chemical	Chemical Supplier	Subcontractor	

G. JANITORIAL SERVICES CONTRACT QUALITY SPECIFICATIONS

Fulfilling customer contract expectations is a primary objective of the SKB Quality System. To ensure that customer expectations will be fulfilled, SKB clearly defines the requirements for each contract before it is approved.

The Contract Manager ensures that the information in customer contracts clearly defines customer expectations and that the necessary details are provided to set requirements for maintenance.

SKB personnel and subcontractors and suppliers are accountable for compliance to standards-based written specifications.

To achieve expectations reliably and consistently, specifications are clearly spelled out, not only for results but also for processes. Specifications apply to materials, work steps, qualified personnel and subcontractors and suppliers, safe work rules, and environmental work conditions.

Standards ensure that results are specified rather than left to discretionary practices.

All SKB janitorial activities comply with generally accepted good workmanship practices and industry standards.

H. JANITORIAL SERVICES INSPECTION AND PLAN

SKB identifies inspections that will be performed during the contract. A report is completed for each inspection. The inspection reports are then used for monitoring compliance to the plan and tracking results.

If independent laboratories are required to perform tests or quality inspections, we ensure that the laboratories are certified by a nationally recognized testing accreditation organization as appropriate for the scope of the inspection or test.

The Quality Inspection and Test Plan form lists inspections and tests (other than work task inspections) that will be performed on this contract.

Results of inspections and tests will be recorded on the Inspection and Test Form.

Form exhibits are included as an exhibit in this subsection.

CONTROL OF INSPECTION, MEASURING, AND TEST EQUIPMENT

Inspection, measuring, and test equipment that will be controlled, calibrated, and maintained.

The Quality Manager evaluates the contract requirements and determines if there are measuring devices that require controls to assure quality results.

For each type of device the Quality Manager identifies:

- Restrictions for selection
- Limitations on use.
- Calibration requirements including the frequency of calibration. All calibrations must be traceable to national measurement standards.

When a measurement device is found not to conform to operating tolerances, the Quality Manager validates the accuracy of previous measurements.

I. JANITORIAL SERVICES WORK TASK QUALITY INSPECTIONS

SKB identifies a list of work tasks, phases of operation, which will be quality controlled.

WORK TASKS SERIES OF INSPECTIONS

Each work Task is subject to a series of inspections; before, during, and after the work is complete. Each inspection verifies compliance with full scope of the relevant specifications; not limited to checkpoints for heightened awareness.

- The initial task-ready inspection occurs when crews are ready to start work and ensures that work begins only when it does not adversely impact quality results.
- Incoming material inspections verify that materials are as specified and meet all requirements necessary to assure quality results.
- Work-in-process inspections continuously verify that work conforms to contract specifications and workmanship expectations. Work continues only when it does not adversely impact quality results.
- At completion of the Task an inspection verifies that work, materials, and tests have been completed in accordance with contract quality requirements. When appropriate, functional tests are performed.

Inspection results are recoded and maintained as part of the contract files.

SPECIAL PROCESS INSPECTIONS

The Quality Manager identifies special processes where the results cannot be verified by subsequent inspection or testing and determines if continuous work in process inspections are required. For these special processes, a qualified inspector continuously inspects the work process.

MATERIAL QUALITY INSPECTION AND TESTS

Material quality inspections and tests ensure that purchased materials meet purchase contract quantity and quality requirements. The Supervisor inspects or ensures that a qualified inspector inspects materials prior to use for conformance to contract quality requirements.

The Supervisor ensures that each work task that uses the source inspected materials proceed only after the material has been accepted by the material quality inspection or test.

DAILY QUALITY CONTROL REPORT

The Supervisor records a summary of daily work activities. The report will include:

- Schedule Activities Completed
- General description of work activities in progress.
- Problems encountered, actions taken, problems, and delays
- Meetings held, participants, and decisions made
- Subcontractor and Supplier and Company Crews on site
- Visitors and purpose
- General Remarks
- Improvement Ideas
- Weather conditions

J. QUALITY CONTROL OF CORRECTIONS, REPAIRS, AND NONCONFORMANCES

Should a problem occur in the quality of work, we systematically contain the issue and quickly make corrections. Our first action is to clearly mark the item by tape, tag, or other easily observable signal to prevent inadvertent cover-up.

Then we expedite a corrective action that brings the workmanship or material issue into conformance by repair, replacement, or rework. Previously completed work is reinspected for similar nonconformances. In the event that we cannot correct the item to meet contract specifications, the customer will be notified and customer approval of corrective actions is required before proceeding.

Fixing problems found is not sufficient. SKB systematically prevents recurrences to improve quality. First enhanced controls and management monitoring are put into place to assure work proceeds without incident. Then using a structured problem solving process, SKB identifies root causes and initiates solutions. Solutions may involve a combination of enhanced process controls, training, upgrading of personnel qualifications, improved processes, and/or the use of higher-grade materials. Follow-up ensures that a problem is completely resolved. If problems remain, the process is repeated.

Nonconformances and their resolution are recorded on a Nonconformance Report form. A Nonconformance Report form exhibit is included in this subsection.

K. CONTRACT COMPLETION INSPECTIONS

SKB conducts a series of inspections near the end of each contract to assure that the contracted work is completed to specifications.

Near the end of the contract, or a milestone, the Quality Manager, Supervisor, and Contract Manager participate in the inspection of the completed contract and verify conformance to contract specifications. Any deviations are corrected and reinspected before submitting the contract to the customer for final inspection.

If the customer performs a final inspection, corrections are quickly addressed, reinspected by the Quality Manager, and then submitted for customer final review.

A Record of each of the inspections will be maintained on the Contract Completion Inspection form. If punch items are discovered during the inspection, a record of the punch items and their correction will be maintained on the Punch List form. Contract Completion Inspection and Punch List form exhibits are included as an exhibit in this subsection.

L. QUALITY ASSURANCE SURVEILLANCE

We manage overall contract performance by setting performance objectives, measuring actual performance, and managing performance improvements. Overall performance objectives will be designed to extend our customer's performance work objectives into SKB operations. Each objective will have specific and verifiable measures.

We expect to measure performance in the following areas:

- Customer satisfaction through customer feedback, surveys, complaints, and quality assurance surveillance reports.
- On-time task completion as measured by a monthly on-time performance assessment
- Contract administration compliance as measured by a monthly contract contract administration assessment
- Safety Plan compliance as measured by safety violations and a monthly safety assessment
- Quality Plan conformance as measured by a monthly Quality Plan assessment

Every month, SKB holds a performance improvement meeting with the participation of key contract and customer personnel. They review past performance, contract quality risks, and quality issues. An action plan is set for improvement and progress is reviewed at the next meeting.

SKB Facilities & Maintenance Contract Quality System Audit Form

Version 20131118

Contract ID	Contract Name	Auditor	Date
18-0007	Memphis International Airport		

Review Topics:
(Place check mark next to each item audited)

- Customer satisfaction
- On-time task completion
- Contract administration
- Safety compliance
- Quality risk planning and mitigation
- Performance improvement results
- Action plan for improvements

Quality Plan Conformance:

- Contract QC Personnel
- Project Quality Coordination and Communication
- Employee Qualifications
- Qualification of subcontractors and suppliers
- Contract Quality Specifications
- Testing Plan
- Test Reports
- Work Task Quality Inspections
- Daily Quality Control Report
- Control of Punch Items and Nonconformances
- Contract Records and Documents

Nonconformance Notes and observations

Action plan for improvement

Follow-up results and date

M. CONTROL OF QUALITY RECORDS AND DOCUMENTS

On this contract, SKB will keep quality documents and records of quality activities that occur throughout the duration of the contract.

Contract quality records will be stored in the contract field office. As a backup, copies of records will be held offsite. The exact location will be determined at quality coordination meeting.

N. SERVICING AND WARRANTY

SKB will provide warranty service per the contract specifications, regulatory requirements.

SKB will maintain the capability to provide the necessary service by having the required resources available. This includes materials, equipment, and personnel.

15.7.2.1

SKB's Organizational Structure has been carefully developed to address all cleaning task and frequencies to meet the objectives of Memphis International Airport. All employees on each shift will report the shift supervisor. The shift supervisor will follow all daily, weekly, monthly and quarterly objectives that have been outlined by the Project Manager. Below SKB will identify each employee's role at the Memphis International Airport.

General Cleaners / Floor Technicians Duties and Responsibilities:

- Report to job properly uniformed
- Team huddle or meet with Supervisor for daily pass-down
- Gather necessary equipment and/or supplies
- Report to assigned area to complete daily task (trash removal, bathroom cleaning, floor service, glass cleaning, carpet spotting, horizontal surface wipe downs etc.) while being courteous and professional

Supervisor's Duties and Responsibilities:

- Plan/Schedule daily work assignments
- Assign and Distribute assignments
- Safety Checks of all equipment
- Coordinate Team Huddle / Safety Talks
- Promote Safe Working
- Monitor and Communicate daily assignments with Project Manager
- Train New Employees
- Retrain current employees when / where KPI's relevant to the Quality Management System indicate

Project Manager Duties and Responsibilities:

- Project Manager will oversee all day-to-day operations
- Ensure that we are exceeding MSCAA's objective while maintaining SKB Quality Standards
- Interact with customer daily to obtain feedback
- Conduct Safety Meetings
- Ensure all equipment and Vehicle inspections are performed weekly
- Manage SKB's quality control plan
- Conduct Inspections with representative from the Airport Authority

Shift Staffing Models:

1st Shift Staffing Model

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Supervisor	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p
Male Cleaner Restrooms & Gates "A"	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p
Female Cleaner Restrooms & Gates "A"	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p
Male Cleaner Restrooms & Gates "C"	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p
Female Cleaner Restrooms & Gates "C"	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p
Trash / Utility Person 1 (A &C)	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p
Men's Restrooms - Ticket & Baggage	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p
Ladies Restrooms - Ticket & Baggage	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p
Remote, Taxi & Bus Stands	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p
Trash / Utility Person - Ticketing, Baggage & Ext	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p
Maintenance, Engineering, ID, Communications & Assist Authority	X	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	X
Airport Authority, Development & Administration	X	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	X
Off Sites	X	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	6:30a - 3:00p	X
Total Hours	72	96	96	96	96	96	72

2nd Shift Staffing Model

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Supervisor	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p
Male Cleaner Restrooms & Gates "A"	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p
Female Cleaner Restrooms & Gates "A"	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p
Male Cleaner Restrooms & Gates "C"	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p
Female Cleaner Restrooms & Gates "C"	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p
Male - Ticket & Baggage	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p
Female - Ticket & Baggage	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p
Remote, Taxi & Bus Stands	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p
Trash / Utility Person - Ticketing, Baggage & Ext	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p
Trash / Utility Person - Gates	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p
Maintenance / Engineering, Office Space	X	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	2:30p - 10:30p	X
Total Hours	72	80	80	80	80	80	72

3rd Shift Staffing Model (Floor Techs)

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Supervisor	10p-7a	10p-7a	10p-7a	10p-7a	10p-7a	10p-7a	10p-7a
Carpet Technician	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a
Carpet Technician	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a
Strip & Wax Employee #1	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a
Strip & Wax Employee #2	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a
Floor Techs	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a
Floor Techs	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a
Floor Techs	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a	9p-5a
Total Hours	56	56	56	56	56	56	56

3rd Shift Staffing Model (Bathrooms)

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Supervisor	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a
Kaivac Restroom Cleaner #1	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a
Kaivac Restroom Cleaner #2	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a
Restroom Detailer #1	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a
Restroom Detailer #2	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a
Restroom Detailer #3	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a	10:00p - 6:30a
Total Hours	40	40	40	40	40	40	40

Note to the schedule:

- Created a .30 shift overlap between 1st & 2nd shift. Too often concourses, gates and the terminal are not monitored during this time: SKB feels that a shift overlap is required during this transition.
- A full time trash / utility person has been added to the concourses. From our experience, this is necessary to properly maintain gates before, during and after flights into a particular gate.

With the proposed staffing model, we are confident that we will meet all objectives outlined by the authority.

Cleaning Frequencies:

- 1st Shift (Mornings)
 - All bathrooms (gates & terminal) are to be cleaned “4” times per shift
 - Gates will be monitored continuously
 - Remote, Taxi, Bus Stop & Rental Car will be cleaned
 - All Office space will be cleaned and monitored
 - Off Sites will be cleaned
 - Exterior cleaned / monitored (sidewalks, trash & dog area)

- 2nd Shift (Evening)
 - All bathrooms (gates & terminal) are to be cleaned “3” times per shift
 - Gates will be monitored continuously
 - Remote, Taxi, Bus Stop & Rental Car will be cleaned
 - Scheduled / Open Office space will be cleaned and monitored
 - Exterior cleaned / monitored (sidewalks, trash & dog area)

- 3rd Shift (Overnight) – Bathroom Cleaners
 - SKB will have 2 bathroom teams assigned to clean all bathrooms! **Team 1** will be a Deep Surface Cleaning team that will be responsible for scrubbing of the floors, pressure washing walls, urinals, toilets and sinks. All public area restrooms will be divided up into 7 zones and each night the Deep Surface Cleaning team will complete a zone. **Team 2** will be the detail team. These cleaners are responsible for cleaning any restroom that are not being “deep” cleaned.

- 3rd Shift (Overnight) – Floor Technicians
 - Carpet Technicians – Will Deep Clean (extract), Spot Clean and Edge Vacuum all Carpet
 - Strip & Wax Technicians – Will be responsible for stripping and waxing of terrazzo flooring in the scheduled area(s)
 - Scrubber / Buffer Technicians – This team will buff and scrub all terrazzo tiles, scrub tunnels and rental car flooring

Transition Timeline

During SKB's transition into the Memphis International Airport, SKB will remain in constant instant electronic communication with the Airport Authority. As you will see throughout the Transition Plan, SKB will be providing weekly updates, requesting progression meetings and conference calls to discuss any concerns, to provide updates and additional planning.

The focal points of our customized technical training include:

- Security
- Safety
- Purchasing
- Human Resources
- Quality Assurance
- Onsite Training
- Communication
- Equipment
- Supplies

Tasks	Mar 1st - Mar 15th	Mar 16th - Mar 30th	Apr 1st - Apr 7th	Apr 8th - Apr 14th	Apr 15th - Apr 21st	Apr 22nd - Apr 30th	Start
Contract Award							
Contract Execution & Meetings							
Provide Proof of Insurance and Bonding							
Conduct pre-start meeting with transition team and Airport Authority							
Review startup timeline and assign task							
Uniform Approval from Airport Authority							
Review Specifications with team members							
Order all Equipment							
Order Vehicle							
Begin Interview process with existing staff							
Interview, Background check and Hire Employees							
New staff orientation							
New Staff paperwork, benefits, etc.							
Schedule Homeland Security Background Checks							
Setup Budgets, Accounting & Quality Management System							
Schedule Biometric Install of Time Clock							
Execute Contract for Window cleaning							
Execute Contract with Subcontractor							
Review Startup timeline with Subcontractor							
Review Cleaning Times and Schedules with employees							
Review Badging Process with Subcontractor							
Discuss Reporting and Communications							
Setup Training Schedules for each job assignment							
Communications Meeting with the Airport Authority							
Take Delivery of Equipment							
Load All Areas into Quality Management System							
Supplies Delivered to Site							
Review Building Evacuation and Emergency Plans with Employees							
Final Meeting with Leadership team to discuss Startup							

15.7.2.2

After choosing the best management team and signing the contract, the single most important phase of a management change is the takeover process. When merging new management processes with old management habits, all transitions present unique challenges--and almost always a new twist. SKB Facilities & Maintenance has developed / implements a comprehensive takeover checklist to assure a smooth, uncomplicated transition.

Once onsite, the first critical item is securing all property keys. The next step: identify all janitorial closets and have SDS forms, equipment & chemicals efficiently delivered to the facility. SKB Facilities & Maintenance, Inc. has a comprehensive in-house training and safety program, but SKB also does technical site training on the 1st day of the takeover to identify area(s) to be processed according to specifications.

The most critical areas have now been covered; however, many details need to be addressed to operate smoothly during this critical period. Therefore, the next step is to determine all short-term operational needs of the property, **i.e. consumable products**. During this time, long-term needs also arise and will have to be dealt with on priority basis, **i.e. floor maintenance**. Our supply vendor will need to be contacted and orders placed to bring inventory to minimum operating levels. This is also the time to establish a working relationship with the management team or anyone designated to review products and address changes that should occur.

It's important that we review the on-site effectiveness of our electronic reporting process, QMS system, and inspection check lists are reviewed to determine if any changes need to be made. Any process changes in these areas must be prioritized and modified to meet the Airport Authority's management standards.

Once operations stabilize, a complete property inspection process is carried out in all areas of the facility that will be cleaned by SKB. The tour will include terminal, concourses, offices, storage areas, bathrooms—to name a few. Exterior areas, including grounds, remote, taxi, bus stands, sidewalks, etc. will be inspected for any flaws that could affect expectations of service. Should any area contain defects, changes must be made swiftly to restore a positive perception of the property. Within the first 3 - 5 days SKB conducts a quality inspection tour, where consistency and cleanliness is the focus. At SKB Facilities & Maintenance one of the major components of our success is creating consistency throughout the facility using standardizing operational guidelines.

A review of each functional area must be completed soon after the contract begins. These functional areas will include all cleanable areas and grounds. Initially, a quick overview is made to validate that there are no distress areas. The quick review uncovers any operational or logistical type of issues. Once issues have been identified, modifications to the processes and procedures can be made and new controls put in place to keep the same type of problem from occurring again. The in-depth review will be ongoing over the following months as a better understanding is gained about the property and Memphis International Airport needs.

SKB Facilities & Maintenance anticipates a non-service interruptive transition. The Project Manager plays a critical role within the transition. SKB's Regional Operations Manager (Brandon Wooldridge) and Operations Manager (James Bishop) will use their extensive and unique experience to coordinate all aspects of assigned projects, and implement task / management plans. Both managers will provide concise summaries of events, recommended courses of actions and reports to the Airport Authority. The Project Manager will be assigned a wide breadth of tasks ranging from day-to-day operations, managing supervisors and all cleaning crews. The Project Manager will be the leadership focal point in the partnership between SKB Facilities & Maintenance and Memphis International Airport.

Regional Operations Manager Contact Information:

Brandon Wooldridge
901-791-2162(o)
901-921-1042©
brandon.wooldridge@skbfm.com

Operations Manager Contact Information:

James Bishop
901-791-2162(o)
901-907-1924©
jbishop@skbfm.com

Project Manager Contact Information:

Proposed – Terry Cobb
901-791-2162(o)

15.7.2.3

SKB staff development starts when an employee walks through our door. From our experience, staff development is ongoing at all levels of our organization. When it comes to our leadership team, SKB keeps our Mission Statement relevant and present. Every manager in the organization knows our mission, “To create a brand new appearance for our customer, every day!” as it pertains to employees, development comes from team huddles, continuous training and safety talks.

Our Quality Management System, KPI’s and Inspection Checklist all will help maintain, improve and monitor performance. All information is consistently disseminated through our QMS system in which continuous improvement, training and corrective actions will be determined from information received through our system.

15.7.2.4

Spills have the potential to cause severe injury to a traveler, as well as considerable economic and image consequences for SKB. SKB will ensure that all spills or any unplanned event are treated with detailed care, and dealt with promptly, to minimize the possibility of any of them becoming a major issue.

SKB will ensure the following:

- All employees are trained on proper spill cleanup procedures
- That Blood Bourne Pathogen kits are strategically placed throughout the airport janitorial closets
- Provide readily accessible emergency information to the general cleaners and supervisors in the event of a spill
- Provide signage to isolate spills from the traveling public
- All cleaning carts are equipped with “wet floor signs”
- If the spill is blood or biohazard, ensure proper disposal by facilitating the management of wastes according to environmental legislation

15.7.2.5

SKB understands that our employees are a vital part of our operation. Team members are rewarded for outstanding performance with incentives such as:

- Gift Cards
- Holiday Events
- Cash Rewards
- Team Dinners

Communication is very important in developing successful employees. We mentor and encourage local talent and provide in-house training to ensure our work teams maintain our high service standards. A 4-step performance improvement plan provides clear guidelines and step-by-step strategies for employees working to achieve performance excellence.

15.7.2.6

With a staffing level that has reached almost 300 team members, about 15% percent are long-term (5+ years of service) and a cadre of highly-trained management personnel with unique knowledge of the industry and airport/facility operations. Having reached the achievement of maintaining a successful, growing business for eight years, our firm has a core group of well-trained and well-managed, loyal employees. Based on doing focus groups within the organization most employees overall are satisfied with the company and benefits that are offered. To recruit employees we use an internet based program, Webcorp (applicant tracking system) where employees can apply online to jobs. Also, we use traditional methods such as job fairs, job boards and employee referrals. SKB believes benefits are important. Currently, we pay for Medical benefits for our employees, we also offer Dental, Vision, Short Term Disability and a host of other benefit plans. Our employees are excited that we offer a 401k plan as well. We believe by offering the above benefits along with our rewards and recognition program we are able to attract and retain top talent.

15.7.2.7

A quarterly financial award would be distributed among our workforce based on performance, seniority, and position held with the company. At this time it would be hard to pinpoint the exact percentage of the award that would be distributed to employees directly not knowing key factors such as the amount of award, however; employees would definitely receive a percentage.

15.7.2.8

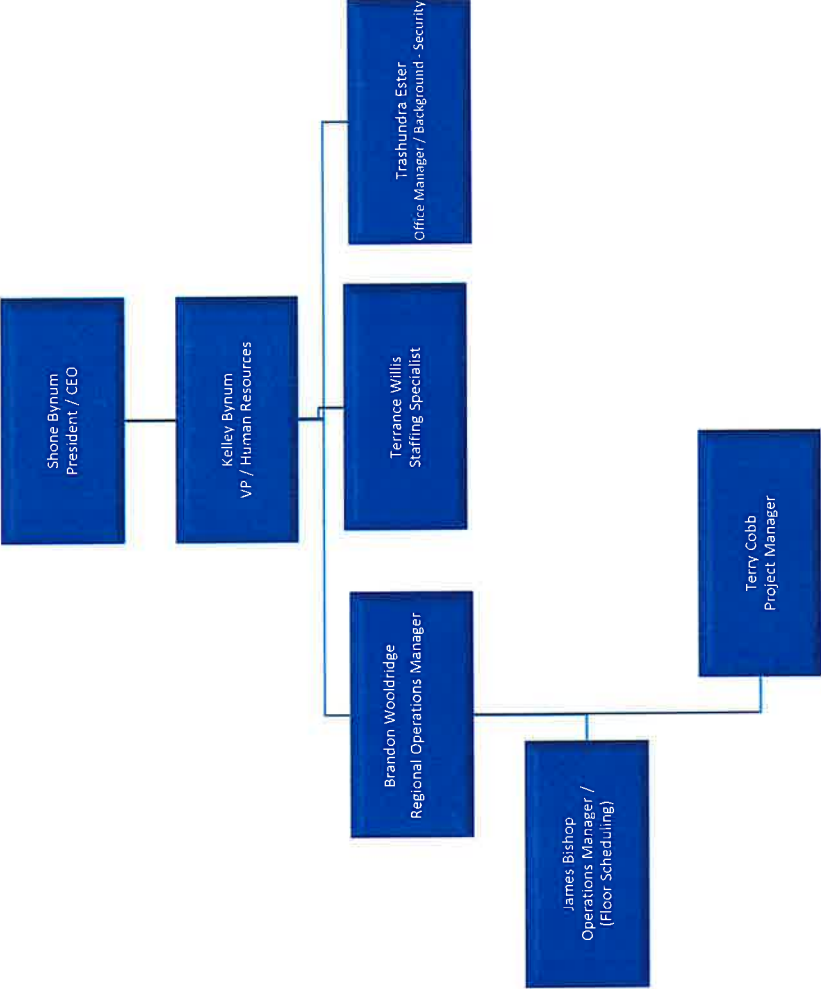
Our on-site training programs depend heavily on management staff, which ensures that our policies and procedures remain an intrinsic facet of developing exceptional managers and qualified leadership. All policies regarding open communication, fairness, equality and professionalism begin at the top. Our Human Resources department has developed a Staff Management Program that we utilize with all start-ups. We answer the following questions:

- What type of staff and skill sets are required?
- How will we acquire the staff?
- How long will we need the staff?
- What training will the staff need?
- What is the timeline for the project?
- What budget is available for the project and staff?

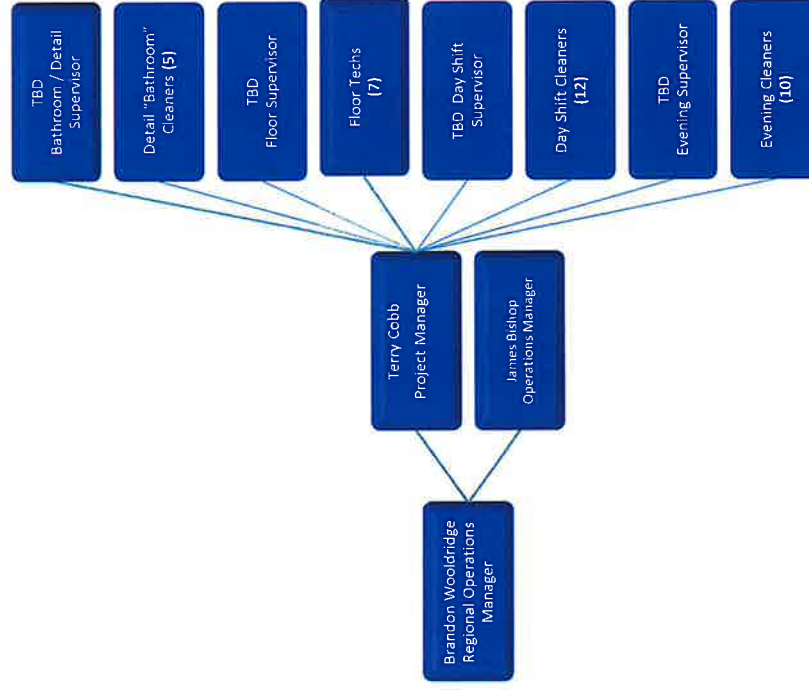
Once these questions are answered we are able to begin hiring for the project. We have identified the following managers for the project:

Manager	Experience	Training
Brandon Wooldridge	10 years Airport Experience at Memphis International Airport	Blood Bourne Pathogen, Biohazard Waste Removal Training, Green Cleaning Training, Spartan Site-Specific Training, 36 Week Safety Training, Carpet Cleaning Training & Scrubber & Equipment Training
James Bishop	9 years Airport Experience at Memphis International Airport	Blood Bourne Pathogen, Biohazard Waste Removal Training, Green Cleaning Training, Spartan Site-Specific Training, 36 Week Safety Training, Carpet Cleaning Training & Scrubber & Equipment Training
Terry Cobb	2 years Airport Experience at Memphis International Airport	Blood Bourne Pathogen, Biohazard Waste Removal Training, Green Cleaning Training, Spartan Site-Specific Training, 36 Week Safety Training, Carpet Cleaning Training & Scrubber & Equipment Training

SKB Facilities & Maintenance Organizational Chart



Memphis International Airport Organizational Chart



15.7.2.9

SKB Facilities & Maintenance, Inc. is an Equal Opportunity Employer. Our firm policy is to extend equal opportunity to all individuals without regard to race, sex, religion, national origin, age, disability, or veteran status. This policy affirms SKB's commitment to the principles of fair employment and the elimination of all existing vestiges of discriminatory practices.

In order to provide equal employment and advancement opportunities to all individuals, employment decisions at SKB are based on qualifications, and abilities. SKB does not base such employment decisions on race, religion, sex, national origin, age, disability, or veteran status. SKB will make reasonable accommodations for qualified individuals with known disabilities unless doing so would result in undue hardship.

This Equal Employment Opportunity Policy governs all aspects of employment, including selection, job assignment, compensation, discipline, termination, and access to benefits and training.

SKB recruits employees using various methods including Job Fairs, Job Boards, Internet Sites, News Papers, Magazines, Employee Referrals, and Community Outreach.

We believe Employee Retention is important and it starts on the first day of employment. If we give our employees the tools they need to be successful on day one, which includes training and support, this sets the tone for the employee's tenure at the company and boosts job satisfaction.

15.7.2.10.1

SKB Strongly believes that the most effective approach to performance management involves setting clear expectations for behavior, thus preventing disciplinary issues. This approach begins with good leadership and fair supervision at all employment levels. Our collective best interest lies in ensuring fair treatment of all employees and in making certain that, when needed, disciplinary actions are prompt, uniform, and impartial.

15.7.2.10.2

SKB believes the main purpose of any disciplinary action is to correct the problem, prevent recurrence, and provide the employee with resources for future improvement. Corrective action involves the use of four steps – verbal warning, written warning, final warning and or suspension with or without pay, and termination of employment – depending on the severity of the problem and frequency of occurrence. There may be circumstances under which one or more steps are bypassed altogether.

Progressive discipline means that, in dealing with disciplinary problems, these steps will normally be followed; a first offense may warrant a verbal warning; a second offense may warrant a written warning; a third offense may warrant a paid or unpaid suspension; and a fourth offense may warrant termination of employment. SKB recognizes that certain types of employee behavior are serious enough to justify either a suspension, or in extreme situations, termination of employment, without observing the above steps of progressive discipline.

15.7.2.10.3

SKB believes that every employee should have an opportunity to grow within the company if his or her performance, knowledge and vision lines up with SKB's objectives. Our current Regional Operations Manager (Brandon Wooldridge) started out as a floor technician with SKB 8 years ago. He is only one of many employees who has grown with SKB.

15.7.2.10.4

SKB understands that training is vital to our business. We believe that people are the most critical resource for building, supporting, and sustaining high performing organizations. All employees are required to attend an intensive, two-hour orientation which includes many of the training methods listed below. Our goal is to make sure our employees know they are a vital part of our organizational success.

Employee training covers all aspects of SKB procedures:

- Floor Care Procedures
- Green Programs
- Blood Bourne Pathogen
- Carpet Care Procedures
- Hazardous Communication Standards
- Restroom Care Procedures
- Office Cleaning
- Customer Service
- Safety

15.7.2.11

Day-to-day operations provide excellent opportunities to celebrate individual achievements. During weekly team huddles and safety talks, verbal acknowledgement of strong employee performance and recognition of individual agenda items. Often, lunch will be provided to the employees where the President or VP of SKB will attend to personally communicate appreciation to the employees.

15.8.1

We utilize products made with Post-Consumer Recycled materials. By upgrading many of the products we use, we are lessening our impact on the environment. As an example, the company we utilize for our can liners recycled 160 Million pounds of plastic last year – still-useful chemical compounds that would have ended up wasted in a land fill.

SKB Facilities & Maintenance has experience in working in LEED buildings. SKB serviced Electric Power Board (EPB) in Chattanooga, TN in 2015 and 2016. EPB is a LEED Certified building that established a program of “Green Cleaning” that assured safe, sanitary and a healthy environment.

SKB established a clear and teachable/repeatable training program for our custodial personnel in the proper product use and cleaning techniques required to maintain a safe, sanitary and healthy environment. We established guidelines and minimum requirements for our employees and subcontractors in selecting cleaning chemicals and other materials in a building with LEED initiatives. SKB consistently utilizes microfiber rags, mops, hepa vacs and green cleaning products.

15.8.2

One innovative solution that SKB uses to help with diversion and recycling is color coding bags for trash/recycle to ensure they end up in the right areas. By using the Revolution Liners, we eliminated the use of 20k lbs of plastic annually of virgin resin liners. The reduction in CO2 produced in manufacturing is the EPA’S equivalent of powering a home for a whole year or removing three cars from the road. (13 Metric Tons removed). The can liners, packaging and ink from the boxes that the bags are shipped in all come from recycled material.

15.8.3 Confirm proposer’s commitment to meet each Environmental Stewardship Program requirement identified below by checking the “Yes” box. If proposer checks the “No” box, please explain.

Environmental Stewardship Requirements	Yes	No
Implement a green cleaning policy and program at Airport facilities by either providing sustainability training/certification for Contractor’s employees	X	
Use environmentally Preferable Products	X	
Provide Documentation and Standard Operating Procedures Relating to Hazardous Materials, Energy Policies and Environmental issues	X	
Use Products with Sustainable Packaging	X	
Support Airport Waste Minimization and Recycling Program	X	

15.9 Tab H – Training, Security and Safety Program

Proposer shall respond on a separate page to the questions below and label each response with the corresponding Section Number. The response to this tab is limited to 2 pages for section 15.9.2. There is no page limit for Section 15.9.1.

15.9.1 Proposer must attach the following offered and enforced by your company.

15.9.1.1 Technical Training Program

15.9.1.2 Security Plan

15.9.1.3 Safety Plans

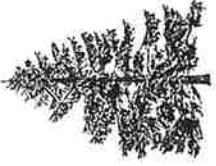
15.9.2 Proposer shall respond to the following questions

15.9.2.1 Describe how your company’s training, security and safety programs meet the requirements of the scope.

15.9.2.2 Describe the means, methods and frequency of technical cleaning training provided to your cleaning staff.

15.9.2.3 Describe the methods used to train staff related to the security aspects of the role of the cleaning staff related to the movement of materials and equipment throughout the facility.

15.9.2.4 Describe the means, methods and frequency of safety training provided to your cleaning staff.



CLEAN FOR HEALTH
CLEAN FOR ENVIRONMENT

Certificate of Recognition

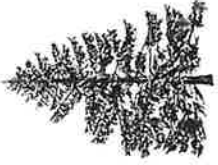
This certifies that
Shone Bynum
participated in the Green Solutions clinic

On the 18th day of January, 2017

*and is dedicated to the
benefits of "Green Cleaning"*



American Paper & Tissue
Authorized Spartan Distributor
Clement A. Smith
Spartan Chemical Company, Inc.
Maumee, Ohio



CLEAN FOR HEALTH
CLEAN FOR ENVIRONMENT

Certificate of Recognition

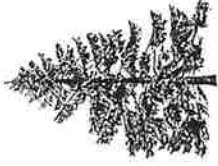
This certifies that
Kelley Bynum
participated in the Green Solutions clinic

On the 18th day of January, 2017

*and is dedicated to the
benefits of "Green Cleaning"*



Amurcan Paper & Tissue
Authorized Spartan Distributor
Clement A. Slute
Spartan Chemical Company, Inc.
Maumee, Ohio



CLEAN FOR HEALTH
CLEAN FOR ENVIRONMENT

Certificate of Recognition

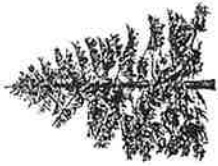
This certifies that
Brandon Wooldridge
participated in the Green Solutions clinic

On the 18th day of January, 2017

*and is dedicated to the
benefits of "Green Cleaning"*



American Paper & Tissue
Authorized Spartan Distributor
Clément A. Jacob
Spartan Chemical Company, Inc.
Maumee, Ohio



CLEAN FOR HEALTH
CLEAN FOR ENVIRONMENT

Certificate of Recognition

This certifies that
James Bishop
participated in the Green Solutions clinic

On the 18th day of January, 2017

*and is dedicated to the
benefits of "Green Cleaning"*

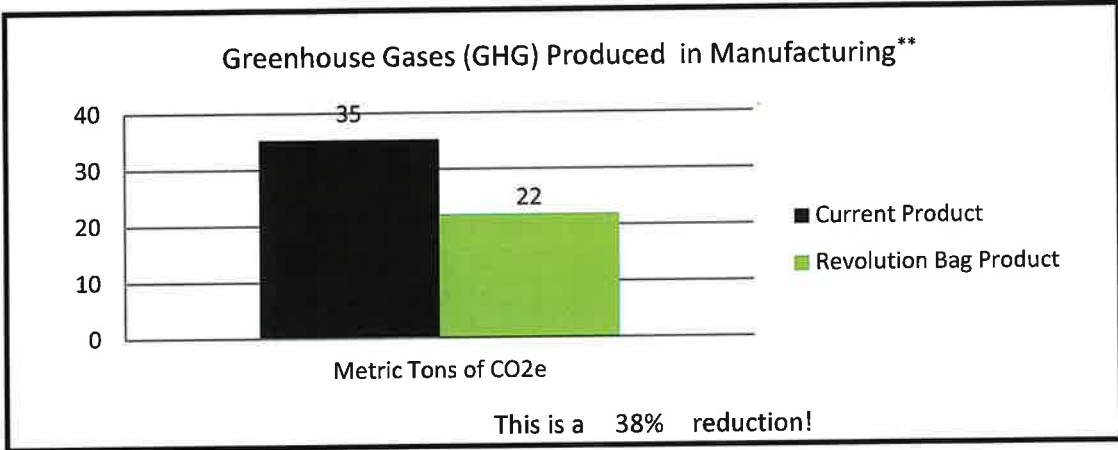


Amanda Pagan & Torie
Authorized Spartan Distributor
Clément A. Satch
Spartan Chemical Company, Inc.
Maumee, Ohio



Environmental Impact Calculator

Enter Number of Cases Consumed Here* = 2,000



Metric tons of GHG reduced by using Revolution Bag compared to current product = **13**

But, really, what is the impact of the greenhouse gas reduction?

Here are some GHG equivalents for **13** metric tons of CO₂e***:

Number of seedlings that would need to be planted and grow for 10 years = **338**



Number of homes powered for one year = **1**

Number of passenger vehicles removed from the road for one year = **3**



* Assuming case is of 100 count 60-gallon liners for Revolution Bag and Corporate Baseline Virgin bags.
 ** GHG coefficients are based on the Life Cycle Assessment by Scientific Certification Systems
 *** All emission equivalents are from epa.gov



GOING GREEN IS IN THE BAG

Can liners for every type of commercial or industrial need

QUALITY

STRONG, DURABLE CONSTRUCTION

Premium resin allows performance to equal or exceed that of liners made of non-recycled materials

All tubular construction means no slit seals to split under pressure

Star-sealed bottom

Perforated on coreless rolls for easy separation



ECO-FRIENDLY

EXCEEDS EPA PROCUREMENT GUIDELINES BY AN AVERAGE OF 700%

Qualifies in existing building USGBC LEED program

All bags contain 30% to 97% post-consumer recycled resin

More than 1 billion pounds of waste diverted from landfills to date

VALUE NO EXTRA COST FOR BEING GREEN

CLOSED-LOOP PROCESS A REVOLUTIONARY SYSTEM

Revolution Bag creates liners through a closed-loop, in-house system that ensures the highest-quality post-consumer recycled resin (PCR)



We make the irrigation polytube



We pick up the used polytube from farmers



We recycle the polytube into certified 100% PCR



We make Revolution Bag can liners for you



100% RECYCLED CONTENT
POST CONSUMER RESIN



PRODUCT CERTIFIED FOR REDUCED ENVIRONMENTAL IMPACT. VIEW SPECIFIC ATTRIBUTES EVALUATED: UL.COM/EL UL126

ALL REVOLUTION BAG STOCK ITEMS AND BLENDS ARE ECOLOGO CERTIFIED

RB1117



ENVIRONMENTALLY PREFERABLE PRODUCT



Life Cycle Assessment



SCS Global Services conducted an assessment to determine the positive impact our product has on the environment. The LCA shows that production and use of Revolution Bag liners results in lower environmental impacts across the board when compared to liners made without recycled content.

37% Lower Global Climate Change Emissions

Global Climate Change: Tracks man-made greenhouse gases that are changing the planet's climate.



53% Less Depletion of Energy Resources

Energy Resource Depletion: Accounts for the depletion of non-renewable energy resources, such as crude oil, natural gas, and uranium.



50% Decrease in Human Exposure to Fine Particulate Matter

Fine Particulate Matter (Soot): Exposure linked to pulmonary illness, cardiac disease, and cancer in the population.



31% Decrease in Human Exposure to Ground Level Ozone

Ground Level Ozone (Smog): Exposure linked to asthma, bronchitis, and emphysema in the population.



12% Less Impact on Ocean Acidification

Ocean Acidification: Addresses the degree to which carbon dioxide emissions are making oceans more acidic, harming the oceans' ecosystems and food web.



31% Less Impact on Ocean Warming

Ocean Warming: Accounts for the warming effect of greenhouse gases, which are linked to killing coral reefs and changing the oceans' ecosystems.



51% Less Impact on Regional Acidification

Regional Acidification (Acid Rain): Tracks acid emissions that deposit in sensitive areas and affect our lakes, rivers, and wildlife.

Life Cycle Impact declaration of Revolution Bag's Loadmaster PCR LLDPE utility grade institutional can liners based on ISO 14044:2006 Environmental management - Life Cycle Assessment - requirements and guidelines. LCA study proves that production and use of one hundred thousand Loadmaster can liners made with 70% post-consumer recycled content results in lower environmental impacts when compared to can liners made without recycled content. Environmentally Preferable Products (EPP) and services have a lesser or reduced negative effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison applies to raw materials, manufacturing, packaging, distribution use, reuse, operation, maintenance, and disposal. Environmentally Preferable Products possess more than one environmentally friendly attribute.



SCS Global Services does hereby certify that an independent assessment has been conducted on behalf of:

Delta Plastics of the South LLC

3201 South Main Street, Stuttgart, AR, United States

For the following product(s):

LDPE/LLDPE Plastic Resin Pellets

The product(s) meet(s) all of the necessary qualifications to be certified for the following claim(s):

SCS RECYCLED CONTENT CERTIFIED

Conforms to SCS Recycled Content Standard V7-0 for a **100% Post-Consumer Recycled LDPE/LLDPE Resin Pellets Content**. The material quantification and mass-balance calculations are completed on a dry-weight basis.

Registration # SCS-MC-01084

Valid from: October 1, 2017 to September 30, 2018



A handwritten signature in black ink that reads "Stanley Mathuram".

Stanley Mathuram, PE, Vice President

2000 Powell Street, Ste. 600, Emeryville, CA 94608 USA

SCSglobal
SERVICES

SCS Global Services does hereby certify that an independent assessment has been conducted on behalf of:

Revolution Bag

8801 Frazier Pike, Little Rock, AR, United States

For the following product(s):

Hercules Natural (N1 Formula)

The product(s) meet(s) all of the necessary qualifications to be certified for the following claim(s):

SCS RECYCLED CONTENT CERTIFIED

Conforms to SCS Recycled Content Standard V7-0 for a **Minimum 97% Post-Consumer Recycled Plastic Resin Content and made with 100% Post-Consumer Recycled Resin Material**. The material quantification and mass-balance calculations are completed on a dry-weight basis.

Registration # SCS-MC-03359

Valid from: October 1, 2017 to September 30, 2018



MINIMUM 97% RECYCLED CONTENT
POST-CONSUMER

SCSglobal
SERVICES

A handwritten signature in black ink that reads 'Stanley Mathuram'.

Stanley Mathuram, PE, Vice President

2000 Powell Street, Ste. 600, Emeryville, CA 94608 USA

SKB JANITORIAL ASSOCIATE TRAINING MANUAL

*We take pride in our work,
you will take pride
in our results!*

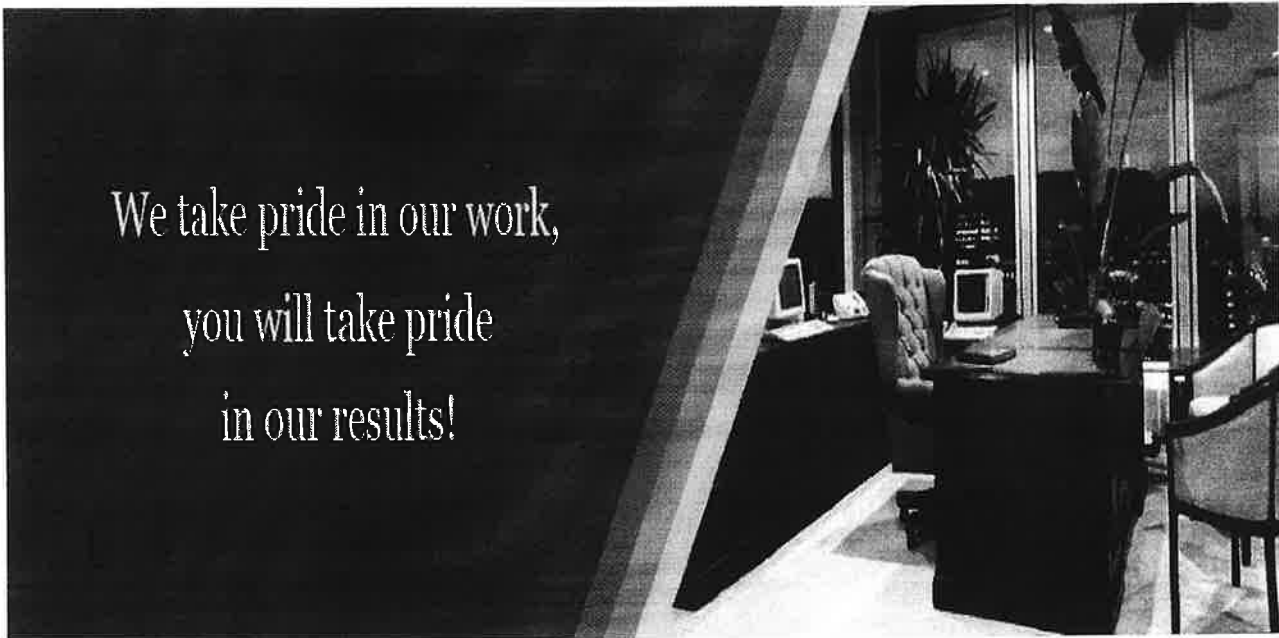


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Definition of Terms

Cleaning—Cleaning is removing obvious dirt, debris, and other materials from a surface.

Etiquette—Etiquette refers to rules of acceptable behavior. In other words, etiquette by definition refers to the “rules and conventions governing correct or polite behavior in society in general or in a specific social or professional group or situation.”

Green Cleaning—Green Cleaning is cleaning to protect health without harming the environment.

Falls--

Lockout/Tagout—"Lockout/Tagout (LOTO)" refers to specific practices and procedures to safeguard employees from the unexpected energization or startup of machinery and equipment, or the release of hazardous energy during service or maintenance activities. A lockout/tagout program requires the identification and implementation of practices and procedures necessary to shut down and lockout/tagout machines and equipment. The program requires that certain employees receive training in the lockout tagout procedures and that periodic inspections be conducted to maintain and enhance it.

Safety—Safety as it applies to this manual is relative freedom from danger, risk, or threat of harm, injury, or loss to personnel and/or property, whether caused deliberately or by accident.

Sanitizing—Sanitizing or disinfecting is the actual killing of the microorganisms through heat or chemicals.

Security—Security as it applies to this manual is prevention of and protection against assault, damage, fire, fraud, invasion of privacy, theft, unlawful entry, and other such occurrences caused by deliberate action.

Slips--A slip occurs when there is too little traction or friction between the shoe and walking surface. You slip when you lose your footing or grip on a slippery surface.

Trips and Falls—A trip is a fall or stumble caused by catching your foot on something. Tripping and falling accidents occur when your foot comes in contact with an object, or drops unexpectedly throwing you off-balance. A fall is when someone or something moves downward to a lower position by the force of gravity.

Universal Precautions--Universal precautions refers to the practice, in medicine, of avoiding contact with patients' bodily fluids, by means of the wearing of nonporous articles such as medical gloves, goggles, and face shields.

Chapter 1: Introduction

WHAT IS THE CUSTODIAL OR JANITORIAL INDUSTRY?

A **janitor** or **custodian**, often called caretaker, is a person who takes care of a building, such as a school, office building, hospital, or apartment. Janitors are responsible primarily for cleaning, and often though not always some maintenance and security duties. Similar to the custodian or janitor is the building superintendent. Generally a superintendent has more maintenance and managerial duties.

Janitors and custodians may be required to receive training and licensing in various fields, such as Hazmat, CPR, or Boiler Operations, depending on the employer and the specific nature of the job.

A custodian may be considered to be different from a janitor. In some settings janitors are called housekeepers or housekeeping staff and in other settings they are referred to as maintenance or maintenance staff. Institutions have come up with a number of politically correct alternative job titles, including:

Custodial Services Supervisor

Custodial technician

Sanitation supervisor

Domestic engineer

Guest Service Associate

Environmental Services Associate

Caretaker

Industrial Floor Maintenance Sanitation Engineer

The Crew

General cleaner

Physical Plant and Planning

Janitorial Engineer

PURPOSE OF THIS MANUAL

The purpose of this manual is to acquaint you with cleaning techniques and safety in the Janitorial and Custodial industry. Some typical cleaning jobs may include the following tasks.

Cleaning bathrooms

Sinks

Toilets

Urinals

Cleaning floors

Cleaning carpeting

Cleaning stainless steel and other special surfaces

Clearing tables in lunch room

Emptying trash and recycling bin

Stripping and waxing floors

No matter what job you have as a Janitor or Custodian there are responsibilities associated with your job. One of these responsibilities is safety, safety for you and the safety of your co-workers and guests or patients in your facilities. Over the many years, safety has evolved into a very high profile responsibility. Depending on where you live and work, safety laws and regulations are becoming more stringent and demanding.

Ideally safety is freedom from danger. Of course, every safety topic for the Janitor or Custodian cannot be covered in this one manual. However we will be discussing many safety topics including protection from the risk of harm or injury, safety devices, and responsibilities.

Topics including general information and new employee orientation will be covered. There are sections on accident prevention, bloodborne pathogens, electrical safety, lockout and tagout, safe lifting, and of course cleaning techniques.

Chapter 2: General Safety Rules for Everyone

The Janitors and Custodians may consist of many groups of employees. As indicated by the different job titles mentioned, jobs in this industry are many and diversified. There are general safety rules that apply to everyone. Some of these rules are discussed here.

Horseplay is always prohibited...so don't even think about it!

PERSONAL

Personal Hygiene

Hygiene refers to the set of practices associated with the preservation of health and healthy living. Hygiene is a concept related to medicine, as well as to personal and professional care practices related to most aspects of living, although it is most often associated with cleanliness and preventative measures. In medicine, hygiene practices are employed to reduce the incidence and spreading of disease.

Cleanliness requires a daily bath and a change to clean underclothing. Use a deodorant to prevent body odor. If you are a guy, shave daily. Give teeth and hair proper care, everyday. Keep fingernails short and clean. If you are a gal, use cosmetics in moderation. Refrain from the use of heavy scents.

In order to control cross-contamination, hands should be washed after performing cleaning duties. Before continuing on to the next area, wash your hands. Also, wash before meals and after going to the restroom.

Massage hand cleaner around the fingers, knuckles, and hands. Scrub fingernails with a brush. Keep your hands lower than your elbows when washing. Wash vigorously for two minutes. The tap water should be running during the entire process. Use medicated hand moisturizer when skin becomes dry or chapped.

To protect yourself you should use the proper Personal Protective Equipment or the acronym PPE for each cleaning task you perform.

Report to Work Rested

A first step to safety is to report to work rested, alert, and ready to perform your job. Fatigue may affect your ability to work safely. It may also impair your ability to treat your colleagues with the hospitality consistent with your training.

Wear Appropriate Clothing

Next, you should always wear appropriate clothing for your job. Follow your company's dress code. This includes wearing proper footwear for the job.

If you will be working equipment and machinery, don't wear rings and jewelry that can get caught in the moving parts.

Keep long hair tied back or under a hat. This will avoid having your hair getting caught in machines. Clothing should fit properly allowing room for movement without being so loose it could get caught in machinery moving parts.

Report Accidents

Most companies provide necessary first aid and medical treatment for injuries. If you are injured on the job, report the accident to your supervisor immediately, so that proper medical treatment can be provided.

First aid or professional medical treatment will be given as necessary; however, you must report all accidents and injuries when they occur, even if your injury does not require medical treatment.

PERSONAL PROTECTIVE EQUIPMENT

What is personal protective equipment or the acronym PPE and how does it affect you? Personal protective equipment is equipment that has been designed to protect you from potential injuries. When required for certain job assignments, personal protective equipment will be issued to you. It's your responsibility to wear it.

Personal protective equipment could include safety glasses when your eyes are exposed to potential injury, gloves to protect your hands, hard hats for head protection, hearing

protection for high noise areas, face shields to protect your face, respirators, specialized shoes...all these and more are considered personal protective equipment.

Wearing personal protective equipment is important to protect you from injury or illness while performing your job. Some of the personal protective equipment you need may include:

Eye Protection

You should choose the proper type of eye protection for the hazard. For example, safety glasses are not appropriate when working with chemicals that may splash in your face or eyes. Goggles and a face shield would be the best choice when working with chemicals.

Skin Protection

You should wear the right protective gloves for the hazard or chemicals. Some products can melt or go through the glove. Also protect your skin by wearing a protective apron or smock. If your clothing is soaked with chemicals, change them immediately to prevent prolonged skin contact.

Hearing Protection

Hearing protection may also be required if you work in a noisy area or with noisy equipment such as vacuums and other tools.

Respiratory Protection

Respiratory protection may be required depending on the job and chemical products being used. You must be trained before using a respirator. Discuss the need for this protection with your supervisor.

ELECTRICAL SAFETY

Electrical safety is another important safety consideration. Naturally, everyone has been exposed to electricity and how dangerous it can be if it's misused.

Generally, in the workplace you should always inspect electrical cables, cords, and plugs for frays, cracks, cuts, or defects before you use them. If the electrical tools or equipment you use do not say "*Double Insulated*" on the manufacturer's tag, then they must be grounded with a 3-prong plug and a grounded cable. This provides some degree of protection from

electrical shock in case of a malfunction or short in the tool. Figure 1 shows a three prong plug and receptacle.

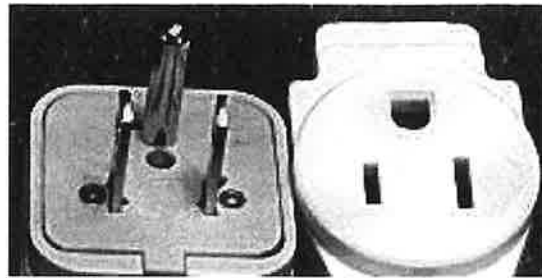


Figure 1 Three prong electrical plug and receptacle.

What this means is there must be a third prong on the plug. The third wire goes to ground. In case of a short or malfunction, the electricity will flow through this third wire to ground and not through the person holding the malfunctioning tool or equipment. Of course, if the ground wire is not properly connected to the system or the third prong is missing from the plug, then there is no electrical shock prevention.

Always check and test your equipment for safety before you use it.

Never allow an outlet to be overloaded.



Figure 2 Example of an overloaded electrical outlet

Don't overload circuits by plugging in more than the allowed number of electrical power outlets. The use of octopus plugs, as shown here, makes a dangerous situation that could cause a fire.

Electrical hazards can be caused by faulty electrical tools and equipment, appliances and wiring, electrical outlets, switch panels and electric transformers.

Remember to unplug any electrical appliance before you clean it. Working around water and electricity is dangerous.

Make sure that any electrical or other types of cords do not create tripping hazards. Of course, never clean electrical equipment with flammable or toxic solvents and never use flammables near electrical tools. The sparks from the inside of a machine or tool can cause an explosion.

CONTROL OF HAZARDOUS ENERGY/ LOCKOUT TAGOUT

What is Lockout/Tagout or LOTO?

"Lockout/Tagout or LOTO" refers to specific practices and procedures to safeguard employees from the unexpected energization or startup of machinery and equipment, or the release of hazardous energy during service or maintenance activities. A lockout/tagout program requires the identification and implementation of practices and procedures necessary to shut down and lockout/tagout machines and equipment. The program requires that certain employees receive training in the lockout tagout procedures and that periodic inspections be conducted to maintain and enhance it.

Lockout is the practice of using keyed or combination security devices or "locks" to prevent the unwanted activation of mechanical or electrical equipment. Tagout is the practice of using tags in conjunction with locks to increase the visibility and awareness that equipment is not to be energized or activated until such devices are removed. A tagout device is usually a non-reusable type, attachable by hand, self-locking, and non-releasable with a minimum unlocking strength of no less than 50 pounds.

Authorized and Affected Employees for LOTO

Now, before we go much further, let's discuss two categories of employees requiring knowledge and training in lockout/tagout procedures. The first category is "Authorized

Employees". These are maintenance personnel who actually use lockout and tagout procedures while they are repairing or maintaining equipment. The second category is "Affected Employees." This describes any employee who uses or works around equipment and machinery that may be locked out or tagged out. You need to be able to recognize tags used by your employer for LOTO. It's recommended that virtually all employees be in the "Affected Employee" category.

What are Hazardous Energy Sources?

Let's begin with some basics, as you'll need these to understand the program. What are hazardous energy sources?

Electricity is used to provide power to a wide variety of machines and equipment. Locking out of electricity prevents electrical equipment from accidental release of electricity during maintenance or repair. The main problem here is locking out electricity does not guarantee that other energy sources won't be released. There may be a steam valve that requires locking out as well or hydraulic, vacuum, or pneumatic pressure, mechanical motion, springs, thermal energy such as steam or heat, or extremely low temperature liquids or gases.

Releases of chemicals or chemical reactions are other energy sources that must be controlled, dissipated, or shut off. Locking out of electricity may not provide adequate protection during maintenance and repair. Each machine or piece of equipment must be inspected by trained employees to determine adequate lockout procedures for all potential hazardous energy sources. Your organization must have these energy sources identified and listed in the written lockout/tagout policy and procedures.

The first step in all lockout/tagout procedures is to identify the potential energy sources that will require control by lockout or tagout. In general, there are 6 types of energy sources that may be encountered. As we discussed earlier, electrical energy is the first type of energy source for consideration. In addition there is mechanical energy, hydraulic energy, pneumatic energy, thermal energy and chemical energy.

Mechanical energy can present a danger from moving parts such as rotating fans, shafts, gears, grinding wheels, moving packer blades, panels, conveyors, and more. Hydraulic

systems that work using fluid under pressure are candidates for LOTO procedures. An example of pneumatic energy is air pressure stored on Air Brake Systems. Pneumatic pressure may also be present in air accessories and control systems. Thermal energy is heat, heat from fluids such as coolant and lubricating oils and from hot machinery such as engines, exhaust systems, electric motors, and gear cases are sources of potential thermal energy. Finally, potential energy can be released by chemicals when they react with one another, or react with air and/or water.

Now, that we have identified potential energy sources; we have to determine which switch, valve or other isolating device will be operated to isolate these energy sources. Whenever working on equipment in a manner which any potential energy source could be encountered, the appropriate procedures must be followed to isolate or disable the applicable hazards.

Employee Training for LOTO

Employees or any other authorized and affected employees who may be reasonably expected to use the equipment or procedures for LOTO must receive annual LOTO training from the appropriate training staff. Training requirements are outlined under Code of the Federal Register 29 CFR 1910.147 Section (c)(7) (i),(ii), and (iii). These training programs are designed to provide you with a good understanding of lockout/tagout procedures.

Record Keeping for LOTO

Inspection records and training records will be kept by your employer. Training records will be maintained by employer and they will include an outline of topics covered. In addition, a sign in sheet of attendees will be included with training records. Inspection records will also be kept.

Inspection Methods for LOTO

OSHA requires that a LOTO Program be reviewed once a year and that periodic inspections of the procedures are made to ensure that they are being followed correctly. Inspections may be done in the shops in your physical plant. These shops may include auto, central plant, controls, electric, plumbing, and refrigeration. Inspections are designed to include cataloging the general types of hazardous energy and equipment applicable to each area.

Some inspections may involve questions only; some may include demonstrations; and others may occur during actual LOTO activities. General questions that may be asked include:

1. Who are the authorized employees, i.e. those using LOTO)?
2. Who are the affected employees, i.e. who are employees that could be exposed to LOTO hazards?
3. Are procedures for energy control in place?
4. What equipment is subject to LOTO?
5. Do specific written procedures exist, i.e. written procedures for de-energizing and re-energizing equipment?
6. Where are your locks/tags?
7. What if an "Authorized Employee" is not available to remove the lock?
8. What inspection records exist for your Department?
9. Do you know what training records exist?

Who is Responsible?

Each individual must accept the responsibility to know the rules and to follow your organization's policies and procedures exactly. The primary purpose of any LOTO program is accident prevention. It is designed to safeguard you and those around you. Safety is always a team effort and LOTO is no different. The rules are very important and if you're not sure about a particular procedure don't be afraid to ask questions. Ask your supervisor. Don't take chances! Failure to properly lockout and tagout when necessary can lead to potentially serious injury.

To make sure the machine doesn't start accidentally, all hazardous energy must be locked out. Hazardous energy could be electricity, springs under tension, gravity...where heavy parts could fall down, liquids, or steam under pressure or other hazardous energy sources.

Some common lockout/tagout equipment is shown in Figure 3. The figure illustrates locks with keys and tags.



Figure 3 Lockout Tagout Supplies

Even if you don't work in these areas or you're not a mechanic or machine operator, it's important that you know about these tags and locks.

Never Remove LOTO

Never remove any of these tags or locks, unless you're the person who placed them there. Don't attempt to start any machine that has a lock or tag on it. Lockout and tagout procedures save lives.

EMERGENCY ACTIONS

In case of fire, exit the building by appropriate exits. Remain calm and report to your designated area so your supervisor can account for you. It's important to know if anyone is left inside the building or if anyone is missing.

In case of earthquake or a tornado, it's best not to go outside. Falling electrical lines, broken glass, or other dangerous conditions could exist outside your building. Experts

recommend that you get under a sturdy desk or other heavy object and ***Duck, Cover,*** and ***Hold.***

Duck under a heavy object for safety.

Cover your head with your hands.

Hold that position until it's safe to move.

In cases of emergency, you should know elements of your company's emergency plan and be prepared to follow them.

Remain calm and use your good judgment and your training to protect yourself and others.

HOUSEKEEPING FOR EVERYONE

In this case housekeeping means that you should check your work area for materials, cords, cables, or other items that can cause slips, trips, or falls.

Housekeeping is checking your equipment to make sure grease or oil doesn't leak on floors, causing potential slips and falls.

Your housekeeping duties include checking closets in your work area for trash, debris, or other potential hazardous conditions. Then address the issue.

Housekeeping is also taking the time to make sure your entire work area, regardless of your job description, is neat, clean, and organized; including putting tools or utensils where they belong when you've finished using them.

Housekeeping is picking up paper, trash, or debris when you see it...even if it's not in your department.

Housekeeping is your responsibility, no matter where you work.

SLIPS, TRIPS AND FALLS

Slips, trips, and falls are a major cause of workplace injuries. Believe it or not accidents happen. Fall injuries can happen when a janitor simply steps off of a loading dock. Or perhaps, a truck driver breaks his ankle when jumping down from the cab of his truck.

Causes of Slips, Trips, and Falls

Slips happen when there is too little friction or traction between footwear and the walking surface. It is easy to slip on a wet or oily surface.

Slips and falls happen. Jumping from any elevated surface is hazardous. You can fall from ladders, stairs, or curbs. Slippery floors, debris, or uneven surfaces will potentially cause you to trip or slip and fall. The study of slip, trip, and fall accidents and injury statistics help us to understand where we went wrong. We use information from these studies and statistics to determine how to prevent future accidents.

Is there a magic bullet? New floor surfaces, "slip resistant" shoes--what is the answer? We believe the answer is education, greater awareness, and maintaining a good safety attitude. We all must accept responsibility for working and acting safely.

We just can't run the risk of you, your coworkers, building occupants, vendors, or clients slipping and falling. First, we are going to review some of the ways people trip and fall. Next, we will review basic prevention techniques.

When your foot strikes an object causing you to lose your balance, you trip and then you stumble or fall. Slips, trips, and fall injuries are caused by hazardous conditions. Hazardous conditions may include an obstructed view or poor lighting.

Clutter left in aisles, trash left on the floor, and protruding chair legs contribute to hazardous conditions. These conditions will certainly lead to accidents if left unattended. Uneven steps, uncovered cables, and open bottom desk drawers also provide circumstances that may lead to trips and falls. Wrinkled carpeting or rolled corners on rubber mats provide another set of hazardous conditions.

Prevention Techniques

Both slips and trips result from some a kind of unintended or unexpected change in the contact between your feet and your walking surface. Good housekeeping is the first and the most important level of prevention for these accidents.

All spills should be cleaned up immediately, especially those in aisles and walkways.

Spills and wet areas should be marked with orange cones or “Wet Floor” signs.

Debris should be mopped or swept from floors, immediately.

Obstacles such as stocking carts, crates, and empty boxes should be removed from walkways. Walkways and aisles should be kept free of clutter.

Runners, rubber mats, rugs, and carpets that do not lay flat should always be secured to walking surfaces.

File cabinet and storage drawers should always be left closed.

Remember that wires and cables are potential tripping hazards.

Lighting is important. Be sure to keep work areas and walkways well lit by replacing burned out light bulbs and faulty switches. Replacing burned out light bulbs is often part of a janitor’s job.

All drains must have drain covers that are secured to the floor.

Clean Up!

Cleaning supplies are often dropped and spilled on the floor. It’s not good enough just to wipe them up; you have to actually clean the surface. Let’s say someone knocks a bottle of marble cleaner off the shelf and onto the floor. The bottle hits the floor and goes crash! Wax goes everywhere. We now have a hazardous condition. By definition this is certainly a slip, trip and fall hazard.

First you must mark the hazard with a sign or an orange cone.



Figure 4 Orange Cones

Next you pick up the container and as much of the wax as possible using a broom and dustpan.



Figure 5 A brush and dustpan set

A dustpan is a cleaning utensil commonly used in combination with a brush or broom. Industrial and commercial establishments may provide you with a hinged dustpan on the end of a stick to prevent you from constantly stooping to use it. Handheld dustpans may be used with either a full-size broom or with a smaller whisk broom or brush sometimes called a duster.

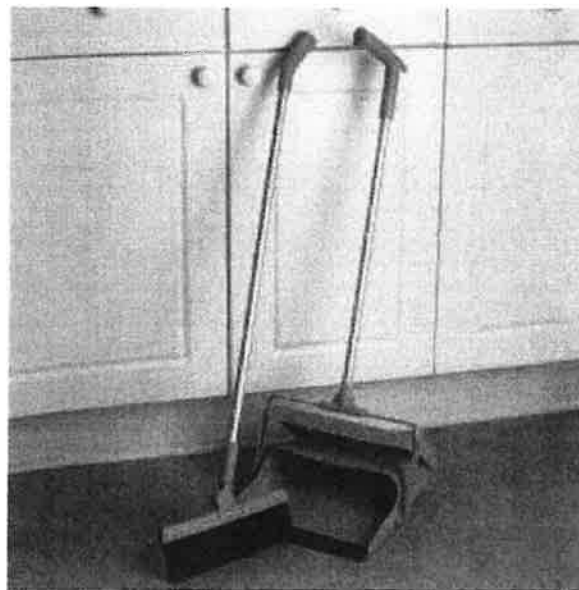


Figure 6 Broom and hinged dustpan with handle

Water spills should be mopped, and then wiped dry with a dry rag or towel.



Figure 7 The Mop

Safety awareness is the key to safety.

You will find that there are many hazards occurring in your working environment on a daily basis. Spilled water, ice cubes, broken glass, and food on the floor...all of these things pose special hazards. Of course, you should immediately clean spills or pick up items on the floor or stairs. The only thing that's going to prevent an accident is for you to be aware of potential hazards and pay attention to your walking surfaces.

If you see something on the floor that doesn't belong there, pick it up. It's that simple! Remember, watch where you walk. Be aware of your surroundings. Always wear approved slip resistant footwear at work. When you see water on the floor or some other hazard, clean it up!

To properly clean up a spill that contains oils, you must first wipe it up and then put some abrasive powder on the contaminated surface. Rub the area to remove any remaining oils. Then clean the floor surface with soap and water, rinse it, and make sure the floor surface is not slick.

Without good housekeeping practices, any other preventive measures will never be fully effective.

Footwear

Footwear is important! Footwear is personal protective equipment where floors may be oily, wet or if workers spend considerable time outdoors. In these circumstances, fall accident prevention should focus on selecting proper footwear. Ordinary tennis shoes are popular, but in wet and slippery environments, they can contribute to accidents and injuries. There is compelling evidence that using slip-resistant footwear reduces accidents.

Effectiveness of slip resistant footwear depends on more than just the footwear design. It is also affected by its use, environmental conditions, and the type of floor surface and finish that is in your working environment.

Behaviors that Lead to Falls

In addition to wearing the wrong footwear, there are behaviors which can lead to slips, trips, and falls. For example, a behavior that can cause a hazardous condition is simply walking too fast or running. Other behaviors that may lead to falls include activities such as not watching where you are going; carrying cleaning buckets and supplies which obstruct your view; wearing sunglasses in low-light areas; failure to use handrails, and allowing yourself to be distracted. These and other behaviors, caused by lack of knowledge, impatience, or bad habits can lead to serious accidents. You can eliminate many slips, trips and fall accidents by simply paying attention and watching where you're going.

Warehouse Vehicles

You should never hitch a ride on a forklift, pallet jack, or in the bed of a truck while you're working. Death or serious injury is a potential result of extra riders falling from these vehicles. The safe way is "NO RIDERS".

Vehicles and the "Three Point System"

Janitors and custodians are often moved from one location to another. When getting in and out of vehicles, always practice the "Three-Point System." This is particularly important if you are getting in or out of a truck. This system can significantly reduce the chances of injury through a slip or fall while entering or exiting a vehicle. The Three-Point System means that three of your four limbs are in contact with the vehicle or the ground at all times, either one

hand and two feet, or two hands and one foot. In other words, only one limb is in motion at any one time. When getting out of a truck, step down backward.

It is never safe to ride in the back of a truck--if you must, when getting off the bed, step down backward, never "jump" or "fall" down forward.

Stairwells

Stairwells should be well lit with sturdy handrails on both sides. When you are walking down a stairwell, you should always have one free hand. This will allow you to use the handrail. All the steps must be kept free of grease, oil, and obstacles. Obstacles can increase the probability that you or others will have an accident. You should always avoid carrying heavy or bulky objects up or down stairs. Objects that obscure your vision and/or require the use of both hands are a source of hazards. You should carry smaller, lighter loads and make more trips, or obtain help from a coworker. Use an elevator if one is available.

Ladders

Ladders are often used by janitors and custodians. Appropriate ladders should be used when performing jobs such as changing light bulbs, cleaning wall surfaces that are above arms reach, and storing supplies on top shelves. The "Three-Point System" should also be practiced when you use a ladder. This system can significantly reduce the chances of injuring yourself through a slip or fall while climbing ladders. As discussed earlier, the "Three-Point System" means that three of your four limbs are in contact with the ladder at all times, either one hand and two feet, or two hands and one foot. Only one limb should be in motion at any one time.

Ladders cause a great number of injuries. Make-shift ladders, chairs, boxes, and barrels should never be used as substitutes for a ladder. The risk of injury is far too great.

The area around the top and bottom of ladder must be kept clear.

Never use a ladder for any purpose other than the one for which it was designed.

Self-supporting step ladders and non-self-supporting extension portable ladders must be able to support at least four times the maximum intended load, except extra-heavy-duty

metal or plastic ladders, which must be able to sustain 3.3 times the maximum intended load.

Step Ladders



Figure 8 Example of what not to do. Never stand on the top two steps of a step ladder

Of course, we all know to never stand on the top two steps of a step ladder. That's just too dangerous and it causes an unsafe shift in the center of gravity of the step ladder.



Figure 9 Metal Step Ladder with Locking Device between 3rd and 4th Step

Don't lean past the rails of the ladder as this also creates instability. We call this the belt buckle rule. Don't lean past your belt buckle for safety.

When climbing up or down a ladder, always face the ladder.

Naturally, don't use a metal ladder when doing electrical work. There is a great risk of electrocution or getting a shock that could throw you off the ladder.

Foldout or stepladders must have a metal spreader or locking device to hold the front and back sections in an open position when in use. See the figure above.

Extension Ladders

There are 3 basic requirements for extension ladder setup.

First, the top of the ladder must extend 3 feet or 3 rungs above the point of contact to the structure.

Secondly, it must be setup at the precise angle of 75.5 degrees to provide the proper angle for climbing. The old four to one ratio makes this difficult to achieve, but the correct angle is important. An “extension ladder angle verification device” is recommended to achieve this angle with accuracy.



Figure 10 Extension Ladder

Did you know? The most common reason extension ladder accidents occur is due to ladders set up at an improper angle! Several studies show that when workers attempt to set up a ladder at 75.5 degrees without a measurement device, resulting angles varied as much as 9 degrees.

There are commercially available Ladder Angle Verification Devices that are factory set at the OSHA required 75.5-degree angle for correct ladder set up. These devices are simple to use and easily attached to any ladder.

Lets' face it, without a verification device, how do you know that your angle is correct?

Ladders are to be kept free of oil, grease, wet paint, and other slipping hazards.

Do not stand above the highest "safe standing level: prescribed by the ladder's manufacturer.

Do not extend the center of your body's torso past either side rail of the ladder. In other words, don't overreach.

Face the ladder while ascending and descending.

Don't carry tools in hand, use a tool belt.

Wear proper footwear.

FIRE PREVENTION

Good housekeeping is the first step in fire prevention. If you have poor housekeeping, you don't have good fire prevention.

The second step in fire prevention is to know where fire extinguishers are located and how to use them. Fire extinguishers are often marked with a sign as shown in Figure 3. These signs are usually at eye level.



Figure 11 Sign above a fire extinguisher

If you don't know how to use the extinguishers at your location, learn how before a fire happens. It's not as easy as it looks because in case of fire, everyone is under pressure and it is easy to panic.

As a review of the use of extinguishers, the first rule is: ***Life Safety Is Paramount.*** This means that unless it's safe to do, don't try to play the hero. Don't try to extinguish a fire that could be hazardous for you or others. Remember, your life is more important than property.

The figure below shows a typical fire extinguisher. Fire extinguishers are equipped with a gauge such as the one shown; the needle should be in the green zone - not too high and not too low. There is a nozzle at the end of a hose for aiming. Each extinguisher has a pin to prevent accidental discharging.



Figure 12 A typical fire extinguisher

However, if extinguishing the fire can be done safely, extinguish it. Use a fire extinguisher. Use the key word PASS, as described below, to remember the proper procedures for extinguishing a fire. First, stand about 8 to 10 feet away from the fire. You don't want to be close to the fire because the pressure of the extinguishing agent may spread the fire. Stay at least 8 to 10 feet away.

The PASS Acronym

P A S S is an acronym that can be used as a quick reference for the operation of a fire extinguisher.

P is for **Pull**. First you pull the Pin at the top of the extinguisher. The pin releases a locking mechanism and will allow you to discharge the extinguisher.

A is for **Aim**. Next you aim at the base of the fire, not the flames. This is important-in order to put out the fire, you must extinguish the fuel.

S is for **Squeeze**. And next you squeeze the lever slowly. This will release the extinguishing agent in the extinguisher. If the handle is released, the discharge will stop.

S is for **Sweep**. Finally you sweep from side to side using a sweeping motion. Chase the fire into a corner. You must move the fire extinguisher back and forth until the fire is completely out.

It is often a good idea to aim the nozzle in a neutral direction away from anything, and then lightly squeeze the handle. This will give you a feel for your particular extinguisher.

Be sure to operate the extinguisher from a safe distance, several feet away, and then move towards the fire once it starts to diminish. Since different fire extinguishers have distinct recommendations for operating distances, be sure to know the instructions on your fire extinguisher. These instructions should be reviewed the first time you familiarize yourself with your facility. Remember to aim at the base of the fire, and not the flames. Chase the fire into a corner if possible, away from any concentration of flammable materials with a sweeping, herding motion.

A typical fire extinguisher contains 10 seconds of extinguishing power. This could be less if it has already been partially discharged. Always read the instructions that come with the fire extinguisher beforehand and become familiarized with its parts. It is highly recommended that you get hands-on training.

Once the fire is out, don't walk away. Watch the area for a few minutes in case the fire re-ignites.

The Fire Triangle

The triangle illustrates the rule that in order to ignite and burn, a fire requires three elements: heat, fuel, and an oxidizing agent, usually oxygen. The fire is prevented or extinguished by removing any one of the three. A fire naturally occurs when the elements are combined in the right mixture. A graphic depiction of the fire triangle is given in the figure below.



Figure 13 Oxygen Heat and Fuel Triangle

The Fire Tetrahedron

It has largely been replaced in the industry by the **fire tetrahedron**. The removal of heat explains fire suppression in a majority of cases. However, the suppression effect of Halon, which is a stable halocarbon used to put out fires, cannot be explained completely. It can partly be explained by what is called chemical inhibition. That means that it reacts chemically to reduce the concentration of radicals in the flame. These radicals are essential in the chemical reactions. This has led to development of the **fire tetrahedron** with the bottom representing the sustaining of chemical reactions. This is illustrated in the next figure.



Figure 14 The Fire Tetrahedron

Combustion is a chemical reaction that feeds a fire more heat and allows it to continue. When the fire involves burning metals like lithium, magnesium, or titanium, it becomes even more important to consider the energy release. The metals react faster with water than with oxygen and thereby more energy is released. Putting water on such a fire results in the fire getting hotter or even exploding because the metals react with water in an exothermic reaction. Some metals also burn in carbon dioxide. Therefore, inert agents for example dry sand must be used to break the chain reaction of metallic combustion.

The take home message here is that you must know what kind of fire you are dealing with to know how to distinguish it. If you are not certain, leave it to the professionals.

CAUSES OF ACCIDENTS AND INJURIES

What causes accidents and injuries? Actually, statistics have been maintained by a number of organizations and insurance companies over the years. With millions and millions of accidents and injuries, it's fairly easy to determine the different accident types, causes, and other information. Accidents are investigated to determine what happened, so precautions and safety standards can be implemented to prevent the same type of accident from being repeated.

That's one reason we have so many safety rules and regulations. If people keep falling off ladders, it could reveal that ladders are unsafe to use. Upon investigation of ladder

accidents, professionals can determine how the ladder was used and what actually caused the accident.

In most cases it wasn't the ladder that was unsafe. It was the person using it in an unsafe manner. In fact, this is true of most accidents. You'd be surprised to learn that many ladder accidents and injuries are the result of unsafe acts of people.

That's right, unsafe acts of people.

Not equipment, not floors, not ladders, not machines, but people. How can that be?

People don't try to have accidents and they don't try to injure themselves. We're not saying that physical hazards never cause or contribute to an accident because they do. However, many accidents and injuries are caused by the acts of people...people taking short cuts, not following proper procedures, ignoring safety rules, and just not paying attention. Or not being trained in safety procedures.

We should always consider possible risks before starting any job and consider how our actions might affect the safety of ourselves and others.

Safety is everyone's responsibility; regardless of where you work. Your company has provided you with training and equipment to perform your job safely but safety is really up to you. You need to follow company policies and procedures on every job, every day. If you do that, you'll be doing your part in helping to reduce accidents and injuries in the workplace.

SAFE LIFTING AND BACK INJURY PREVENTION

Safe Lifting

You've probably heard it a million times...bend your legs, not your back. The reason you've heard it so much is back injuries are painful and debilitating and a serious back injury can prevent you from earning a living or enjoying your leisure time. Nobody wants a back injury. What can you do to help reduce your risk?

Never bend your back when lifting. Never bend over and reach to lift anything. Your back is a complex and sensitive structure made up of vertebrae, discs and nerves. The discs are made of

a soft jelly-like substance that acts like shock absorbers between the vertebrae. Bending over and lifting puts pressure on these sensitive discs and greatly increases the likelihood of an injury.

Never twist while lifting. This too can damage your back. You may twist and lift every day and you haven't experienced an injury or back problem **yet**. If you continue to twist and lift, sooner or later, you will have a back injury. Instead of twisting, lift the item safely, pivot your feet then set the item down. It doesn't take any more time and it could save your back.

If an item is too heavy to lift on your own ask a co-worker to help you. Don't try to lift it yourself. You've been trained and taught proper lifting procedures.

Whatever you lift, keep it close to your body.

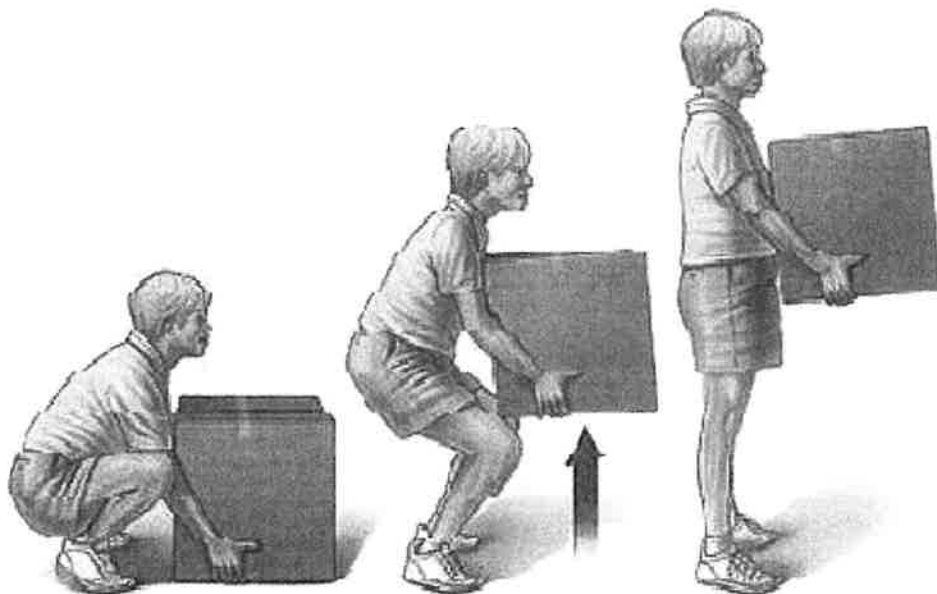


Figure 15 Proper lifting

The figure shown above is an illustration of proper lifting technique. You should lower your body by bending your knees keeping your back perpendicular to the floor. You should keep the object as close to your body as possible and then use your leg muscles to lift the object.

But, it's your responsibility to lift safely. Nobody can do it for you, it's your decision. Make the right choice, the safe choice.

Tips to Prevent Back Pain

Back pain is a fact of life. Many of us have suffered back pain and we know that it's something to avoid. Most doctors don't agree upon what treatment for back pain is best. However, they all agree exercise and diet will greatly reduce your chances of back pain or injury. Since we're not doctors, you should get medical advice on diet and exercise that's best for you.

Proper work practices will make a difference.

As described in the previous section, there are some safe lifting techniques you can use to reduce the potential of injuries and back pain.

Don't lift heavy objects. Get mechanical assistance. Use hand trucks and folding carts as illustrated in the figure below.



Figure 16 Hand Trucks and Folding Cart

When lifting avoid bending and twisting—always use your leg muscles to lift.

Have lumbar support and armrests where you sit.

Change positions frequently.

Safety is a job requirement, but more importantly, safety is a moral obligation to yourself, the company, co-workers, and your family. One accident is simply one too many.

Exits

It is important to know where exits are located and to make sure they're not blocked. Safety awareness will eliminate the vast majority of injuries.

Chapter 3: CLEANING

THREE T'S OF CLEANING

In order to think through the proper steps in cleaning anything, you must first identify the problem, and then select the proper cleaning products and tools to do the job. Having done this, it is important to understand how to properly use these cleaning products and tools. This is an essential element of a successful cleaning job. It is important to know how and why certain procedures and products work and why some do not.

In order to increase the cleaning efficiency of any cleaning chemical, one can utilize what is known as "The Three T's of Cleaning".

The first "T" is for Time. If a cleaning compound stays on a surface longer, the cleaning efficiency of the product is enhanced. This fact explains why a foaming product is better than a pure liquid on vertical surfaces. A pure liquid runs down the vertical surface. The foam tends to remain longer on the surface; thus increasing the cleaning efficiency.

The second "T" is for Temperature. When hot water is used in a carpet extractor, or when hot water is combined with high pressure washing, or "steam cleaning", the product performs better.

The third "T" is for Turbulence or Agitation. Ever wonder why a black or brown stripping pad is used with a stripper to remove floor finish? The Brown Stripping Pad is constructed of polyester fibers in a semi open texture nonwoven fabrication. Abrasive particles are distributed throughout and adhered to the pad with a sturdy adhesive. This turbulence speeds the removal of floor finish.

Have you ever washed your car using a rag or sponge? You were adding turbulence which makes the car get cleaner faster. When hand washing is accomplished, the three "T's" are put to work, and many other cleaning procedures employ the three "T's" of cleaning.

CHEMICALS USED FOR CLEANING AND THE MSDS

Chemicals are a vital part of any cleaning operation. Without them we couldn't clean. But with them, we need to take precautions. If you follow precautions, the chemicals you work with are safe. But you may need to wear personal protective equipment such as gloves in order to ensure your safety.

How do you know what kind of protection is required for each chemical?

The answer is the Material Safety Data Sheets or MSDS. The MSDS contains all the information you need to know about any chemical you work with such as ingredients, hazards, First Aid, personal protective equipment and more. If you're unsure about a chemical ask your supervisor for the MSDS. You can never be too safe or too informed about the chemicals that you use.

Material Safety Data Sheet–MSDS

The Material Safety Data Sheet, commonly called the MSDS, is a component of your University's Chemical Hygiene Plan and Hazard Communication Program. The MSDS contains information provided by the chemical manufacturer and is maintained by the University to inform students and staff of the possible hazards associated with chemicals being used in their laboratory or work area. It is a critical part of any laboratory safety program. The goal of the MSDS is to provide you with a summarized, multi-source resource that informs you of certain basic but necessary pieces of information regarding the substance or chemical you are about to use.

The MSDS informs you about the material's physical properties and related health effects, personnel protective equipment necessary to protect the you, first aid treatment necessary in the event of an exposure, how to respond to accidents, and the planning that may be necessary in order to safely handle a spill.

The MSDS may vary in style and content, but all contain certain required sections. State and Federal law requires that all manufacturers and distributors of chemical products provide the end user with a manufacturer specific MSDS. One method of accessing is through electronic databases. Many employers keep a notebook with MSDSs for the particular cleaning supplies that you will be using in your job.

What is a Material Safety Data Sheet?

The MSDS is a widely used system for cataloging information on chemicals, chemical compounds, and chemical mixtures. MSDS information may include instructions for the safe use and potential hazards associated with a particular material or product. MSDS can be found anywhere chemicals are being used.



Figure 17 Sign used to denote harmful substance

There is also a duty to properly label substances on the basis of physico-chemical, health and/or environmental risk. Labels can include hazard symbols such as the European Union standard black diagonal cross on an orange background, used to denote a harmful substance.

The goal of the MSDS is to provide the user with a summarized, multi-source resource that informs the user of certain basic but necessary pieces of information regarding the substance they are about to use. The MSDS informs the user about the material's physical properties and related health effects, personnel protective equipment necessary to protect the user, first aid treatment necessary in the event of an exposure, how to respond to accidents, and the planning that may be necessary in order to safely handle a spill.


MATERIAL SAFETY DATA SHEET	
	Emergency Phone: 800-992-5994 Dow AgroSciences LLC Indianapolis, IN 46288
GALLERY® 75 DRY FLOWABLE HERBICIDE	
Effective Date: 8/5/03 Product Code: 20116 MSDS: 003934	
1. PRODUCT AND COMPANY IDENTIFICATION:	INGESTION: Very low toxicity if swallowed. The oral LD ₅₀ for rats is >5000 mg/kg. Harmful effects not anticipated from swallowing small amounts. INHALATION: No adverse effects are anticipated from single exposure to dust. SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: Contains component(s), which, in animals, have been shown to cause liver and kidney effects. Repeated excessive exposure to crystalline silica may cause silicosis, a progressive and disabling disease of the lungs. Some evidence suggests that kidney effects may result from excessive exposure also.
PRODUCT: Gallery® 75 Dry Flowable Herbicide COMPANY IDENTIFICATION: Dow AgroSciences 9330 Zionsville Road Indianapolis, IN 46268-1189	
2. COMPOSITION INFORMATION ON INGREDIENTS:	CANCER INFORMATION: This mixture contains a component which, is listed as a carcinogen for hazard communication purposes under OSHA Standard 29 CFR 1910.1200. Component listed by IARC and NTP is crystalline silica. An increase in non-malignant liver tumors was observed with isoxaben in one of two species tested. TERATOLOGY (BIRTH DEFECTS): Isoxaben caused birth defects in laboratory animals only at doses toxic to the mother. REPRODUCTIVE EFFECTS: Isoxaben has been shown to interfere with reproduction in animal studies.
Isoxaben: N-(3-(1-ethyl-1-methylpropyl)-5-isoxazolyl)-2,6-dimethoxybenzamide and isomers (Isoxaben) CAS# 092558-50-7 75% Other ingredients, total, including: 25% Kaolin CAS# 001332-53-7 Crystalline silica (in Kaolin) CAS# 014808-60-7 This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not 'Hazardous' per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.	
3. HAZARDOUS IDENTIFICATIONS:	4. FIRST AID: EYES: Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist. SKIN: Wash skin with plenty of water. INGESTION: No emergency medical treatment necessary. INHALATION: Move person to fresh air; if effects occur, consult a physician. NOTE TO PHYSICIAN: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.
EMERGENCY OVERVIEW Light tan water dispersible granule with a mild aromatic odor. May cause eye irritation with corneal injury. LD ₅₀ for skin absorption is >5000 mg/kg. Oral LD ₅₀ is >5000 mg/kg. EMERGENCY PHONE NUMBER: 800-992-5994 POTENTIAL HEALTH EFFECTS: This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner. EYE: May cause moderate eye irritation, which may be slow to heal. May cause slight transient (temporary) corneal injury. SKIN: Prolonged or repeated exposure may cause slight skin irritation. Prolonged skin contact is unlikely to result in absorption of harmful amounts. The LD ₅₀ for skin absorption in rabbits is >5000 mg/kg.	
<small>*Trademark of Dow AgroSciences</small>	

Figure 18 Sample MSDS Material Safety Data Sheet

Each company can design its own MSDS form, and the sections may be in different order. But, the basic kinds of information on any MSDS will be the same. This is an example of the first page of an MSDS.

Chemical Name

For example, there is always a section that lists the identity of the substance or the chemical name on the label, date the MSDS was prepared, the name and address of the manufacturer, and usually a phone number for emergencies and more information.

Hazardous Ingredients/Chemical Identity

The section on hazardous ingredients and chemical identity includes names of substances in the chemical that might be dangerous, and safe exposure limits such as Permissible Exposure Limit or PEL as set by OSHA or the Threshold Value Limit or TVL. This section also lists common names for the chemical.

Physical Characteristics

The section on physical characteristics describes many physical qualities of the chemical, and lets you know what is usual or safe. For example, it may state how the chemical looks and smells; boiling and melting temperatures--this is important in case a chemical might become a gas you could breathe; evaporation rate; how easily the chemical dissolves; and how heavy it is--this tells you if it will sink, float, or dissolve in water.

Fire and Explosion Data

The section with fire and explosion data provides information on the lowest temperature when the chemical could catch fire or flash point. It also contains flammability data that lets you know if it's flammable; if it catches fire below 100 degrees Fahrenheit; is combustible; or, if it catches fire above 100 degrees Fahrenheit. In addition, this section lists the best way to put out a fire involving that chemical.

Reactivity

The section on reactivity describes what happens if this chemical comes in contact with air, water, or other chemicals. It also describes conditions, like heat, or materials that can cause the chemical to react by burning, exploding, or releasing dangerous vapors. The chemical is called "incompatible" or "unstable" with these conditions or substances. For example, sodium metal is unstable when it comes in contact with water. It explodes!

Health Hazards

The section on health hazards lists ways the chemical might enter your body, like splashing on your skin or being breathed in as vapor. It will also list possible symptoms of overexposure. This section will provide information about how overexposure might make existing medical conditions worse, and it describes emergency first aid procedures.

Usage, Handling, and Storage

The section on usage, handling and storage describes how to clean up an accidental spill, leak, or release. This part will include any special procedures that might be required for clean-up. It will provide you with information on how to handle, store and dispose of chemicals safely. Remember, if there is an accident, you must notify your laboratory instructor or professor immediately. You may take care of it yourself only if you are trained to do so and are wearing the proper personal protective equipment.

Special Protection and Precautions

This section explains special Personal Protective Equipment to use when working with a chemical. It also describes requirements for special procedures, extra health or safety information, signs that should be posted, and other information not covered in other sections.

It is wise to study MSDSs for any chemicals you will work with in your job. MSDSs for many commercial substances are not primarily intended for use by the general consumer. Material safety data sheets focus on the hazards of working with the material in an occupational setting. For example, an MSDS for a cleaning solution is not highly pertinent to someone who uses a can of the cleaner once a year, but they are extremely important to someone who works with a cleaner or a chemical in a confined space for 40 hours a week.

You may work in many different departments throughout your facility...housekeeping, offices, the kitchen, and others. Employees in each of these departments use different chemicals in the performance of their job responsibilities.

You need to be aware of what chemicals are on what items before you use them. Some chemicals when mixed together can be quite deadly. Let's give you an example. A kitchen

employee may have used ammonia on a rag to clean something in the kitchen. That's perfectly okay as long as there was proper ventilation. Ammonia on its own is perfectly safe when used properly. But if you take the ammonia soaked rag and use it with detergent containing bleach you have just created a very hazardous condition.

Ammonia and bleach, when mixed together, form a deadly combination called chloramine gas. Chloramine gas can kill you. Never mix bleach and ammonia.

Stain removers and certain detergents can also be a hazard. That is why it's vital to your safety and the safety of those around you to always read the chemical label and the MSDS sheet for each chemical that you use and always wear the required personal protective equipment. You can't afford not to!

VENTILATION

Most of today's new office buildings and workplaces are highly insulated and practically air tight. While this is great as far as cost effective energy bills go, the down side to tightly insulated buildings is poor indoor air quality. As windows and doors are typically kept shut throughout the day, moisture, and stale air that can carry contaminants and pathogens. The air circulates inside and gives rise to various problems including mold and mildew, health problems, ruined furniture, and peeling paint. The quality of indoor air can be achieved through mechanical ventilation.

An excellent way to ventilate thoroughly, efficiently, and cheaply is to use exhaust fans.

What Are Exhaust Fans?

An exhaust fan is a mechanical ventilation device that helps to draw out stale and impure air from a room or building and bring in fresh air, thereby improving the quality of indoor air. Exhaust fans are typically ducted to the exteriors, through which bad indoor air can effectively be removed from your work space. Any volatile cleaning supplies will also be vented.

There is a lot of heat and humidity in the bathrooms and laundry rooms and without proper ventilation, mold and mildew can accumulate. Ventilation also keeps the heat down and makes your facility a more comfortable place to work.

Use spray bottles instead of aerosols for applying chemicals if another means is not possible, and make sure you have proper ventilation when using chemicals. When in a commercial building, make sure ventilation systems are turned on. Inadequate ventilation allows chemical by-products to be absorbed into porous items such as ceiling tiles and wallboard.

What to do when there is no exhaust fan

If you are cleaning a restroom with no exhaust system, prop the door open. Place a "Cleaning in Progress" sign in the doorway.

Whenever possible, use mechanical means rather than chemical means for cleaning. For example, use a microfiber cloth instead of a chemical-based dust control product. Also use a microfiber cloth instead of a feather duster, which causes dust to become airborne.

REPORT HAZARDOUS CONDITIONS

We couldn't possibly cover every safety hazard you may encounter on the job. That's why it's up to you to pay attention to safety and do your part to reduce accidents and injuries. You work in the facility every day and no one knows your job better than you.

The training you've received should help you perform your job in a safe manner. But it's really up to you. Obey all posted warning signs. Read and follow all instructions on chemical labels and MSDS sheets. Lift safely. You should always report hazardous conditions to your supervisor, so they can be corrected.

But most of all; use your common sense and good judgment and make yourself personally responsible for a safe and accident free workplace. Take pride in your job and in safety. Nobody can do it for you.

Chapter 4: CLEANING IN THE HEALTH CARE INDUSTRY

Sanitation and good housekeeping can both be defined as the practice of rendering the hospital free from agents injurious to health. Microbiology, the study of microscopic living, plantlike organisms, including bacteria, viruses, yeasts and molds is the biological science on which sanitation is based. There are many communicable diseases known to man. Each one of these diseases or infections is caused by a specific organism. Organisms enter the body through the respiratory tract, digestive tract or through breaks in the skin and multiply, causing tissue injury and body reaction. As the organisms multiply many are shed by the infected person and may be spread to others, thus beginning the cycle again.

BACTERIA

Bacteria are one of the more common microorganisms. Bacteria generally reproduce and multiply by simple division. Each cell reaches maximum size and divides into two parts. The two parts then grow to full size and each divides again. This cycle is repeated again and again.

Food and environmental conditions such as moisture, temperature, light, and degree of alkalinity influence the rate of bacterial growth. Presence or absence of oxygen is also an important factor, because some bacteria require the presence of oxygen for growth and others require the absence of oxygen.

VIRUSES

Viruses are much smaller than bacteria and they are very often too small to retain in filters. Viruses are considered by some to be living organisms, by others to be complex protein molecules that are capable of growth and multiplication only in living cells. Because of their size, they can remain suspended for long periods of time or they can be transplanted from place to place through the hospital's air conditioning system.

INFECTION CONTROL

You know about infection, bacteria, and viruses, but how do you control these potential health hazards? Control of infection caused by these bacterial and viral organisms depends on breaking

what can be called the chain of infection. This chain consists of the reservoir or source of infection, which might be bacteria laden dust, the means of transmission of the infection such as air and finally, the host. The object of infection control is to eliminate reservoirs and to block the means of transmission.

Pathogenic organisms can be transmitted from the reservoir of infection to the new host in four different ways:

- 1.The first of these is contact, which includes direct contact such as kissing and indirect contact, which means organisms are passed from their reservoir to some object or substance and then to the host.
- 2.The second type of transmission is sneezing or coughing, which involves droplets.
- 3.The third type is droplet nuclei, which are the small residue of evaporated droplets that carry pathogenic organisms. These droplet nuclei remain suspended in the air for long periods of time.
- 4.The fourth type is dust that has become contaminated, which is present on floors, in clothing, and in bedding and when stirred up by normal activities, moves from place to place.

The first step in infection control is to understand the difference between cleaning and sanitizing. Cleaning is removing obvious dirt, debris, and other materials from a surface. Sanitizing or disinfecting is the actual killing of the microorganisms through heat or chemicals.

Disinfectants are very helpful in infection control. There are specific housekeeping procedures essential in controlling the spread of infection.

Top priority should be given to the cleaning of horizontal surfaces, but also give proper attention to the cleaning of walls and other vertical surfaces. Harmful bacteria, which may be introduced into surroundings in a variety of ways, are often airborne for only a short distance. Then they become attached to both vertical and horizontal surfaces, but especially to floors.

Use wet-cleaning methods such as damp wiping, damp mopping, and wet mopping wherever possible. Ordinary dry dusting methods may serve only to redistribute bacteria-laden dust. The use of properly filtered or built in vacuum cleaners is acceptable for dusting and sweeping operations.

Add effective germicides or other pathogen killing chemicals to wet cleaning solutions. Don't mix germicides and detergents because the two ingredients may neutralize each other if the appropriate chemicals are not used. If you want to use a combination of germicide and detergent they should be purchased premixed.

Although, the germicide has some value on the floor itself, its real value is in the reduction of bacterial levels in the mop bucket. Unless checked, bacteria multiply rapidly in the warm, moist environment of mop water and may actually contaminate a floor being cleaned.

Fresh damp wiping cloths, treated dust cloths, and clean wet mops should be used to clean surfaces.

The used wet mops and cleaning cloths must be laundered every day. They should not be left soiled or wet in a work closet overnight. Clean the equipment and storage closet every day.

Separate cleaning equipment should be maintained for newborn nursery, postpartum, isolation nursery, delivery suite, operating suite, and the emergency department. Use plastic film or waxed paper bags for the disposal of infected materials.

THE LAUNDRY

Contaminated linens should be handled in accordance with approved techniques. Handling of linen is a crucial phase in infection control because soiled linen is a source of microbial contamination. Processing of soiled linen begins when the linen is removed from the patient, bed, stretcher, physician, nurse, examining table, or operating table.

Laundering removes pathogens by dilution, acidity, and alkalinity in the washing process and by application of extremely high heat of 345 degrees Fahrenheit or more in the ironing process. There are a variety of linen handling, processing, and disposing procedures, each unique to individual hospitals. Be sure to follow your hospital's policies and procedures because this is

extremely important in infection control. Be sure you've had the proper training and if you're not sure about something, ask your supervisor.

ODOR CONTROL

Odor control is part of infection control. Odor problems arise as a result of poor sanitation in toilet areas, utility rooms and work closets. Deodorizer blocks or sprays that attempt to mask the odors are a mark of poor housekeeping. The most effective way to deodorize these areas is with fresh air, removal of the causes, and frequent cleaning with a detergent-disinfectant solution. Garbage collection areas and soiled linen storage areas may be sites where bad odors arise. Frequent removal of garbage, cleansing of garbage cans, and use of tight lids and the use of waxed paper or plastic liners in garbage cans will help to keep odors to a minimum. Good ventilation is extremely helpful also.

WASTE

Waste constitutes a problem and can be classified into three types:

- Non combustible such as glass, tin, casts, and other materials
- Combustible such as wet tissue, bone, garbage, flowers, or dry combustible such as paper, crates, cartons, and trash
- Chemicals such as acids, flammables, and solvents.

All waste except chemicals can be further classified as infectious or non-infectious. Cartons and boxes are classified as combustible dry waste, but a gift box discarded by a patient in isolation becomes combustible dry infectious waste. The best advice is to follow your hospital's waste handling and disposing procedures.

INSECT AND RODENT CONTROL

Insect and rodent control is very important in infection control as these pests do carry bacteria and other harmful microorganisms; therefore, each individual should take care in their daily work habits, cleanliness, and assisting the hospital in insect and rodent control program.

SUMMARY

Infection control is critical in hospitals due to a wide variety of potential hazards. Follow your hospital's policies and procedures, be aware of the hazards, and do your part in making your hospital as safe and infection free as possible. Employees and patients deserve no less.

BLOODBORNE PATHOGENS

Okay, let's talk about some of the risks and hazards associated with bloodborne pathogens and ways to avoid them. The first place to start is with **training**.

Under no circumstances should anyone be allowed to work with bloodborne pathogens in any form without full and complete training. Although you may have a special certification or other external training, your employer is responsible for providing you with thorough, site-specific training and continued instruction in programs and procedures.

Written standard operating procedures or SOPs must form the basis of your ongoing bloodborne pathogen training program.

Training

If you are likely to be in contact with blood borne pathogens, you will have a program designed to provide a good understanding of bloodborne pathogens, common modes of their transmission, methods of prevention, and other pertinent information.

Bloodborne Pathogen training is required if you can reasonably anticipate facing contact with blood and/or other potentially infectious materials as part of your job duties. All Health Care facilities such as a hospital require bloodborne pathogens training and exposure plans, but there are a wide range of other individuals who may come in contact with blood or potentially infectious materials. These individuals may include industrial nurses, first aid providers, emergency first responders, police, and staff.

Pathogens

The pathogens of primary concern are the human immunodeficiency virus (HIV), hepatitis B virus (HBV), and hepatitis C virus (HCV). You are urged to take advantage of available engineering controls and work practices to prevent exposure to blood and other body fluids.

BLOODBORNE DISEASES

Bloodborne pathogens are microorganisms such as viruses or bacteria that are carried in blood and can cause disease in people. There are many different bloodborne pathogens

including malaria, syphilis, and brucellosis, but Hepatitis B or HBV and the Human Immunodeficiency Virus or HIV are the two diseases specifically addressed by the OSHA Bloodborne Pathogen Standard. We are going to provide you with information about hepatitis C; this is a bloodborne pathogen that has no cure.

Hepatitis B

In the United States, approximately 300,000 people are infected with Hepatitis B or HBV annually. Of these cases, small percentages are fatal. "Hepatitis" means "inflammation of the liver," and, as its name implies, Hepatitis B is a virus that infects the liver. While there are several different types of Hepatitis, Hepatitis B is transmitted primarily through "blood to blood" contact. Hepatitis B initially causes inflammation of the liver, but it can lead to more serious conditions such as cirrhosis and liver cancer.

There is no "cure" or specific treatment for HBV, but many people who contract the disease will develop antibodies, which help them get over the infection and protect them from getting it again. The Hepatitis B virus is very durable, and it can survive in dried blood for up to seven days.

HUMAN IMMUNODEFICIENCY VIRUS

AIDS, or acquired immune deficiency syndrome, is caused by a virus called the human immunodeficiency virus, or HIV. Once a person has been infected with HIV, it may be many years before AIDS actually develops. HIV attacks the body's immune system, weakening it so that it cannot fight other deadly diseases. AIDS is a fatal disease, and while treatment for it is improving, there is no known cure.

It is good to know that, the HIV virus is very fragile and will not survive very long outside of the human body. It is primarily of concern to employees providing first aid or medical care in situations involving fresh blood or other potentially infectious materials. Because it is such a devastating disease, all precautions must be taken to avoid exposure.

HEPATITIS C

Hepatitis C is a blood-borne infection caused by an RNA virus, hepatitis C virus (HCV). This virus causes damage to the liver that may result in chronic infection and disease. HCV is

unrelated to any of the other known hepatitis viruses (A, B, D and E), and infection is identified by the detection of antibodies to the virus in the blood.

There is no known cure for Hepatitis C.

Risk for exposure

Healthcare personnel are at risk for occupational exposure to bloodborne pathogens, including hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV). Exposures occur through needlesticks or cuts from other sharp instruments contaminated with an infected patient's blood or through contact of the eye, nose, mouth, or skin with a patient's blood. Most exposures do not result in infection.

Your employer should have in place a system for reporting exposures in order to quickly evaluate the risk of infection, inform you about treatments available to help prevent infection, monitor you for side effects of treatments, and determine if infection occurs.

How can occupational exposures be prevented?

Many occupational exposures can be prevented. Needle sticks and other cuts can be prevented by using safe techniques. Using appropriate barriers such as gloves, eye and face protection, or gowns when contact with blood is expected can prevent many exposures to the eyes, nose, mouth, or skin.

MODES OF TRANSMISSION

Bloodborne pathogens such as HBV, HCV and HIV can be transmitted through contact with infected human blood and other potentially infectious body fluids. These body fluids include semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, and amniotic fluid.

It is important to know the ways exposure and transmission are most likely to occur in your particular situation, whether it is providing first aid to an individual in an emergency, handling blood samples in the laboratory, or cleaning up blood from a hallway.

Bloodborne pathogens are most commonly transmitted through sexual contact, sharing of hypodermic needles, from mothers to their babies at or before birth, accidental puncture

from contaminated needles, broken glass, or other sharps, contact between broken or damaged skin and infected body fluids, contact between mucous membranes and infected body fluids.

Accidental puncture from contaminated needles and other sharps can result in transmission of bloodborne pathogens. Anytime there is blood-to-blood contact with infected blood or body fluids, there is a slight potential for transmission.

Unbroken skin forms an impervious barrier against bloodborne pathogens. Infected blood can enter your system through open sores, cuts, abrasions, acne, and any sort of damaged or broken skin such as sunburn or blisters.

Bloodborne pathogens may also be transmitted through the mucous membranes of the eyes, nose, or mouth.

As an example, a splash of contaminated blood to your eye, nose, or mouth could result in transmission.

PPE, WORK PRACTICES and ENGINEERING CONTROLS

It is extremely important to use personal protective equipment and work practice controls to protect yourself from bloodborne pathogens. "Universal Precautions", also known as "Standard Precautions" is the name used to describe a prevention strategy in which all blood and potentially infectious materials are treated as if they are, in fact, infectious, regardless of the perceived status of the source individual.

In other words, whether or not you think the blood or body fluid is infected with bloodborne pathogens, you treat it as if it is. Appropriate use of Personal Protective Equipment (PPE) is required by engineering and work practice controls. Where occupational exposure remains after standard engineering and work practice controls are implemented, personal protective equipment shall be used.

Impermeable gloves must be worn when hand contact with blood or mucous membranes is possible. Gloves must also be worn when Other Potentially Infectious Material or OPIM is possible. Gloves must be worn when non intact skin is anticipated, when performing vascular access procedures, or when handling contaminated items or surfaces.

You must be able to wash your hands after contact with blood or other potentially infectious materials. OSHA requires that employees wash their hands and any other skin with soap and water or flush mucous membranes with water as soon as feasible after contact with blood or other potentially infectious materials.

Protective clothing must be removed before leaving the room, and disposed of in an appropriately designated area or container for storage, washing, decontamination or disposal. Probably the first thing to do in any situation where you may be exposed to bloodborne pathogens is to ensure you are wearing the appropriate personal protective equipment (PPE). For example, you may have noticed that emergency medical personnel, doctors, nurses, dentists, dental assistants, and other health care professionals always wear latex or protective gloves.

Rules to follow

There are some simple rules to follow. When coming in contact with blood borne pathogens, you should always wear personal protective equipment. You should replace PPE that is torn or punctured. You should remove PPE before leaving the work area. If you work in an area with routine exposure to blood or potentially infectious materials, the necessary PPE should be readily accessible. Contaminated PPE should be placed in appropriately labeled bags or containers until it is disposed of, decontaminated, or laundered.

Gloves

Gloves should be made of nitrile a rubber used especially in latex-free gloves; neoprene rubber, or other water impervious materials. If glove material is thin or flimsy, double gloving can provide an additional layer of protection. You should always inspect your gloves for tears or punctures before putting them on. If a glove is damaged, don't use it!



Figure 19 Nitrile Gloves

When taking contaminated gloves off, do so carefully. Make sure you don't touch the outside of the gloves with any bare skin, and be sure to dispose of them in a proper container so that no one else will come in contact with them.

REMOVE YOUR GLOVES BEFORE DOING ANY OTHER WORK.

Goggles

Anytime there is a risk of splashing or vaporization of contaminated fluids, goggles and/or other eye protection should be used to protect your eyes. Splashing could occur while cleaning up a spill, during laboratory procedures, or while providing first aid or medical assistance.

Face Shields

Face shields may be worn in addition to goggles to provide additional face protection. A face shield will protect against splashes to the nose and mouth.

Aprons

Aprons may be worn to protect your clothing and to keep blood or other contaminated fluids from soaking through to your skin.

Wearing gloves, gowns, masks, and eye protection can significantly reduce health risks. The new OSHA standard covering bloodborne disease requires that you have appropriate personal protective equipment (PPE) and clothing available.

If you follow safe operating procedures and wear proper personal protective equipment the possibility of contracting a bloodborne disease is greatly reduced.

SELECTING PERSONAL PROTECTIVE EQUIPMENT

Janitors and housekeepers working in health care facilities must use personal protective equipment such as gloves. Single use gloves cannot be washed or decontaminated for reuse. Utility gloves may be decontaminated if they have not been compromised. If you are allergic to standard gloves, you must be provided hypoallergenic gloves or similar alternatives.

You should wear eye and mouth protection such as goggles and masks, glasses with solid side shields, and masks or chin-length face shields when splashes, sprays, splatters, or droplets of potentially infectious materials pose a hazard through the eyes, nose or mouth.

More extensive coverings such as gowns, aprons, surgical caps and hoods, and shoe covers or boots are needed when gross contamination is expected.

OTHER PROTECTIVE PRACTICES

If an your skin or mucous membranes come into contact with blood, you are to wash with soap and water and flush eyes with water as soon as feasible. In addition, you must wash your hands immediately or as soon as feasible after removing gloves. If soap and water are not immediately available, your employer may provide other hand washing measures such as moist towelettes. You still must wash with soap and water as soon as possible.

You must refrain from eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses in areas where they may be exposed to blood or other potentially infectious materials.

Normal clothing that becomes contaminated with blood should be removed as soon as possible because fluids can seep through the cloth to come into contact with skin.

Remember to use universal precautions and treat all blood or potentially infectious body fluids as if they are contaminated. Avoid contact whenever possible, and whenever it's not, wear personal protective equipment. If you find yourself in a situation where you have to come in contact with blood or other body fluids and you don't have any standard personal protective equipment handy, you can improvise. Use a towel, plastic bag, or some other barrier to help avoid direct contact.

Hygiene Practices

Hand washing is one of the most important and easiest practices used to prevent transmission of bloodborne pathogens. Hands or other exposed skin should be thoroughly washed as soon as possible following an exposure incident. Use soft, antibacterial soap, if possible. Avoid harsh, abrasive soaps, as these may open fragile scabs or other sores.

Hands should also be washed immediately or as soon as feasible after removal of gloves or other personal protective equipment.

Because hand washing is so important, you should familiarize yourself with the location of the hand washing facilities nearest to you. Laboratory sinks, public restrooms, janitor closets, and so forth may be used for hand washing if they are normally supplied with soap. If you are working in an area without access to such facilities, you may use an antiseptic cleanser in conjunction either with a clean cloth or paper towels or you may use antiseptic towelettes. If these alternative methods are used, hands should be washed with soap and running water as soon as possible.

Decontamination

Decontamination should be accomplished by using a solution of 5.25% sodium hypochlorite or household bleach diluted between 1:10 and 1:100 with water. The standard recommendation is to use at least a quarter cup of bleach per one gallon of water.

Decontamination can also be accomplished by using Lysol or some other EPA-registered tuberculocidal disinfectant. Check the label of all disinfectants to make sure they meet this requirement.

If you are cleaning up a spill of blood, you can carefully cover the spill with paper towels or rags, then gently pour the 10% solution of bleach over the towels or rags, and leave it for at least 10 minutes.

If you are decontaminating equipment or other objects such as scalpels, microscope slides, broken glass, saw blades, tweezers, mechanical equipment upon which someone has been cut, first aid boxes, or other contaminated equipment, you should leave the disinfectant in place for at least 10 minutes before continuing the cleaning process.

Of course, any materials you use to clean up a spill of blood or potentially infectious materials must be decontaminated immediately, as well. This would include mops, sponges, re-usable gloves, buckets, and pails.

For large blood spills, you should generally contact custodial staff for cleanup. They are trained to do this and use disinfectant to decontaminate the area. However, if you are trained to do so, you can cleanup blood spills if the above procedures are followed.

Sterilization

Sterilization can be achieved using a number of techniques such as heat, irradiation; filtration; and chemical sterilization. In the microbiology laboratory, the most widely used sterilizers are autoclaves. Autoclaves eradicate micro-organisms by use of pressurized steam to cause thermal stress. To achieve a sufficient kill rate, it is necessary to raise the temperature such that even the most thermo-tolerant micro-organisms are inactivated.

Sharps



Figure 20 Sharps container

Needles and broken glass must be disposed of in sharps containers. Improperly disposed needles can cause injury.

Needles

Needles should never be recapped.

Needles should be moved only by using a mechanical device or tool such as forceps, pliers, or broom and dustpan.

Never break or shear needles.

Needles shall be disposed of in labeled sharps containers only.

Sharps containers shall be closable, puncture-resistant, leak-proof on sides and bottom, and must be labeled or color-coded.

When sharps containers are being moved from the area of use, the containers should be closed immediately before removal or replacement to prevent spillage or protrusion of contents during handling or transport.

Broken Glassware

Broken glassware that has been visibly contaminated with blood must be sterilized with an approved disinfectant solution before it is disturbed or cleaned up.

Other Sharps

There are safety dangers associated with accidental breakage of glass capillary tubes. These tubes are used for collection of blood in a variety of health care settings, including hospitals; ambulatory care facilities, physicians' offices, blood donation facilities, and blood testing centers.

Accidental breakage of the tubes has been reported when the tubes are inserted into putty for sealing and during centrifugation.

Blood can spatter, potentially exposing personnel to bloodborne pathogens. The broken glass fragments also can injure the user, resulting in exposure to blood. Breakage during use may result in a penetrating wound and blood inoculation to the user.

To reduce the risk, OSHA recommends that users consider blood collection devices less prone to accidental breakage and readily available, including capillary tubes that are not made of glass, glass capillary tubes wrapped in puncture-resistant film, products that use a method of sealing that does not require pushing one end of the tube into putty to form a plug, or products that allow the blood to be measured without centrifugation.

Signs, Labels, and Color Coding

Warning labels need to be affixed to containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious material; and other containers used to store, transport, or ship blood or other potentially infectious materials.



Figure 21 Biohazard Label

These labels are fluorescent orange, red, or orange-red. Bags used to dispose of regulated waste must be red or orange red, and they, too, must have the biohazard symbol readily

visible upon them. Regulated waste should be double-bagged to guard against the possibility of leakage if the first bag is punctured. Labels should display the universal biohazard symbol.

Emergency Procedures

In an emergency situation involving blood or potentially infectious materials, you should always use Universal Precautions and try to minimize your exposure by wearing gloves, splash goggles, pocket mouth-to-mouth resuscitation masks, and other barrier devices.

If you are exposed

If you are exposed, however, you should wash the exposed area, report the exposure, fill out a report form, and request testing.

1. Wash the exposed area thoroughly with soap and running water. Use non-abrasive, antibacterial soap if possible. If blood is splashed in the eye or mucous membrane, flush the affected area with running water for at least 15 minutes.
2. Report the exposure to your supervisor or instructor as soon as possible.
3. Fill out an exposure report form. This form will be kept in your personnel file so that you can document workplace exposure to hazardous substances. This form can be obtained from your Safety Department.
4. You may also request blood testing or the Hepatitis B vaccination if you have not already received it.

Hepatitis B Vaccinations

Employees who have routine exposure to bloodborne pathogens, such as doctors, nurses, first aid responders, and similar occupations, must be offered the Hepatitis B vaccine series at no cost to themselves. The employees have a right to refuse the vaccination but will need to complete a form documenting their decision not to accept the vaccination.

Record Keeping

Medical records are to be retained for each employee with occupational exposure of bloodborne pathogens for the duration of employment plus 30 years. These records must be confidential and must include name and social security number; hepatitis B vaccination status, and results of any examinations, medical testing and follow-up procedures; a copy of the healthcare professional's written opinion; and a copy of information provided to the healthcare professional.

Training records must be maintained for three years and must include dates, contents of the training program or a summary, trainer's name and qualifications, names and job titles of all persons attending the sessions.

Medical and Training Records 83

The Bloodborne Pathogens Standard requires both medical and training records be maintained. For at least the duration of employment plus 30 years, and must be kept confidential not disclosed without written permission of employee, except by law and separate from other personnel records.

Chapter 5: CLEANING PROCEDURES AND TIPS

CLEANING PRINCIPLES

Cleaning can be a rewording and sometimes fun! It helps to know the basic cleaning principles. First look at what it is you want to clean. Do you know where the dirt came from? If not don't worry. I will give you some ideas on how to find out. It's also important to know the different cleaners and when to use them.

Let's get familiar with some basic cleaners!

Abrasives work like sandpaper and physically remove dirt. They come in powders, liquids and tools like brushes, sponges and pads.

Acid is the opposite of alkaline and can be used to remove rust stains, water deposits and even clean clogged pipes. Depending on its pH level the lower from 7 the more powerful. 7 being neutral and anything higher is considered a Alkaline. Some acids include lemon juice, (citric acid) vinegar, (acetic acid) and hydrochloric acid.

Alkaline can be used to remove heavy oil and grease, wash windows. Clean coffee and tea stains and dissolve grease. Alkaline include banking soda, ammonia, TSP, acronym for Tri-Sodium Phosphate, and lye.

Bleaches used to bleach out a discoloration by removing or adding oxygen. Bleaches are also used to disinfect because of their ability to kill germs safely. Bleach types include oxygen bleach which adds oxygen, reducing bleach which removes oxygen, and peroxide.

Detergents have the ability to lower surface tension and of deflocculating soil and dirt clumps and keeping them in suspension, so they can be washed away. Detergents are typically considered to be both water and oil soluble, which serves as an emulsifying agent. Detergents are used to clean both soil and grease. Detergents include laundry cleaners or synthetic detergents and soap.

Solvents are capable of dissolving another substance to form a uniformly dispersed mixture. They are chemically capable of dissolving oily and greasy soils and stain and speed up drying time because they evaporate faster than water. The types of solvents are water miscible or wet solvents like alcohol and butyl cello solve, and water immiscible or dry solvents like OMS, acronym for odorless mineral spirits and kerosene.

Enzymes are microorganisms engineered to break down protein and oil into their basic components. Enzymes are sensitive to pH changes and chemical reactions.

Now you have the knowledge of what the basic cleaners do. So now we need to identify the problem.

Some grime you might already know.

Some might be more complicated.

Food might automatically be considered a protein; some foods like juices and condiments contain dye.

Urine is a protein but it's also very acidic and may require a combination of enzyme and alkaline to completely remove it.

The pH Scale

In chemistry, pH is a quantitative scale for measuring the acidity or alkalinity of liquid solutions. The scale runs from the number 0 to 14. The number 7 on the pH scale is neutral, not acid or base. The number 0 on the pH scale is a strong acid. The number 14 is a strong alkali. In the cleaning industry the word "alkali" is used to denote base. So the pH scale runs from 0 acid to 14 alkali.

On the pH scale each full number increase represents a tenfold increase of the acidity or alkalinity of the solution. It is a geometric progression by the number 10. So pH of 1 is 10 times more powerful than pH of 2. The pH of 3 is 100 times more powerful than pH of 4.

The numbers on the scale denote the “strength” characteristics of the solution not the “quantity” or dilution of the solution. Whether you have a drum of lye or a table-spoon of lye they both have the same strength characteristics pH.

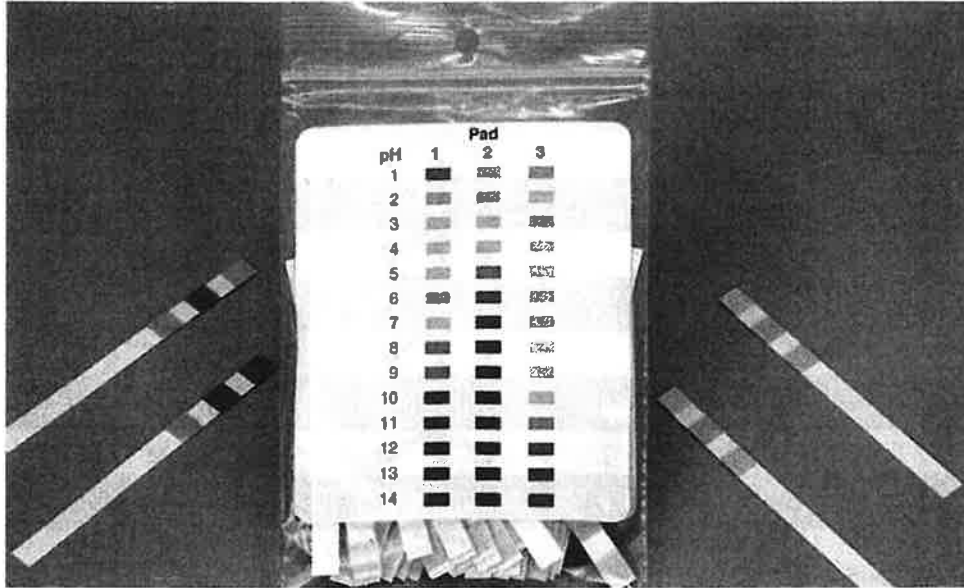


Figure 22 Commercially Available pH Test Strips

COLOR CODING OF CLEANING SUPPLIES

Why Color Coding is Important?

Color coding cleaning supplies improves training and communication. It is an intuitive visual coding system, removing language and literacy barriers when training a diverse workforce in proper cleaning processes. Color coding also provides supervisors with quick visual indicators for monitoring employee activity to prevent tool or chemical misuse.

Examples of the Use of Color Coding of Supplies in Cleaning:

Red: High bacteria areas for example restrooms with toilets and urinals.



Figure 23 Red Color Coding for Cleaning Supplies

Red cleaning supplies are used in areas of the restroom that have higher bacteria concentrations, where sanitation is a priority. Particularly toilets and urinals should have a high priority.

Yellow: Specialty cleaning for gymnasiums and laboratories.



Figure 24 Yellow Color Coding for Cleaning Supplies

Use for sinks and general restroom cleaning, to prevent cross contamination from toilet and urinal areas. May also be used for specialty cleaning activities such as gymnasiums, laboratories and floor-care projects.

Green: Foodservice areas for example cafeterias and kitchens.



Figure 25 Green color Coding for Cleaning Supplies

Green cleaning supplies should be used in areas that come into contact with food, including kitchens, cafeterias and employee break rooms. Or for example, a separate color could be used for food preparation areas for an added degree of safety. For example, in food preparation areas, one color, for example a light lime green, could be used for raw meats and another color for preparation of fruits, vegetables, and lettuces, for example a deep woods green.

Blue: General use for example offices, hallways and classrooms.



Figure 26 Blue Color Coding for Cleaning Supplies

Blue is used for general cleaning in offices, entrances, hallways and reception areas.

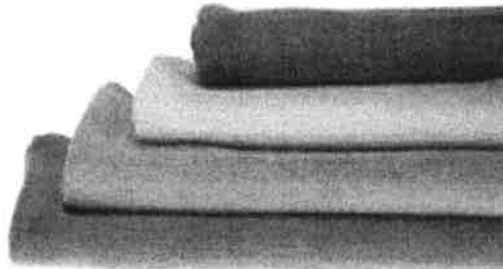


Figure 27 Red, Yellow, Green, and Blue Color Coded Microfiber Cleaning Cloths

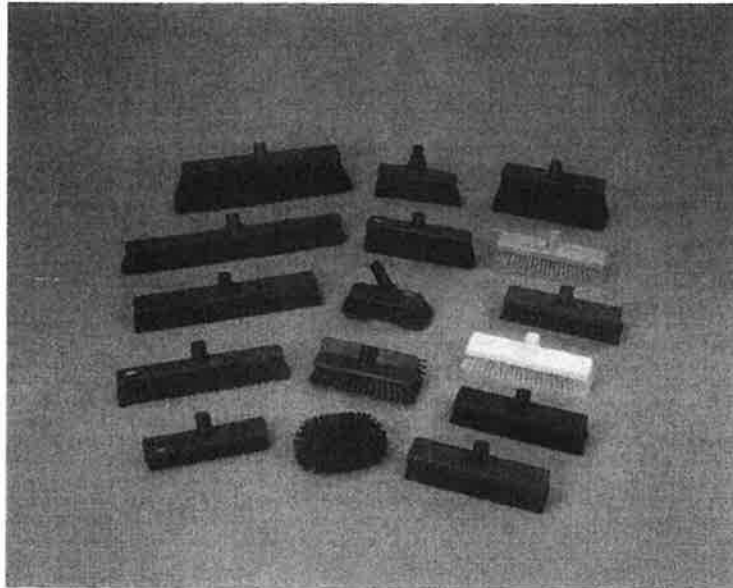


Figure 28 Color coded brushes

Color Coding Prevents the Misuse of Chemicals

The use of color coding for cleaning supplies prevents the misuse of chemicals and reduces the transfer of harmful substances by separating potentially hazardous cleaning chemicals into their appropriate areas. For example, mopping solutions can be coded for a specific floor to avoid the use of caustic chemicals that may permanently damage the surface.

Simplifies Supply Management

By keeping cleaning tools in their proper areas, color coding allows custodial departments to keep better track of their equipment and supplies. Productivity increases when employees no longer have to search for misplaced tools or proper cleaning equipment.

Improves Efficiency

Color coding enhances the professional appearance of employees and increases their efficiency by making it easy to organize the cleaning process.

Of course every facility is unique. The colors discussed here are just the common colors used in color coding. Additional colors may be used for specific applications, such as color coding types of chemicals for use with specific flooring materials or counter tops.

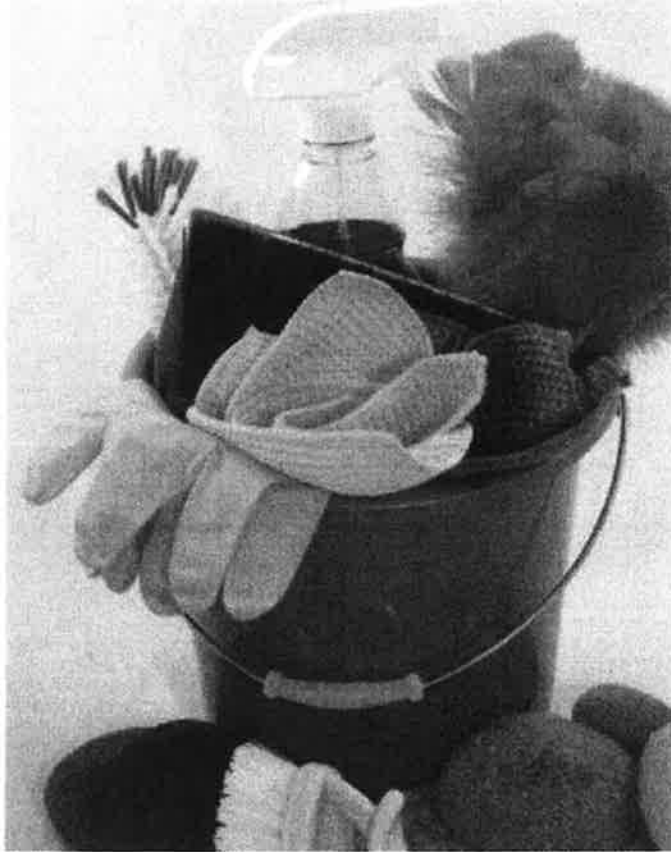


Figure 29 Many different colors for cleaning supplies

In addition, color tape or decals can be applied to your existing or off the shelf cleaning supplies. This gives you the ability to easily change cleaning applications and reassign supplies to different areas or functions as required. For example, color coded decals can be used to change supplies from the general use blue coding to the bathroom red coding.

It is never recommended to reassign any red labeled cleaning supply. Certainly if any red coded supplies are reassigned to any other areas, the supplies must be thoroughly decontaminated, cleaned, and sanitized by disinfection or sterilizing. It would make good sense to dispose of the red supplies and purchase new ones instead of risking cross contamination.

The next figure shows a series of colored and white brushes used in cleaning. Color coded decals or tape can be placed on the handles of the white brushes to achieve color coding.

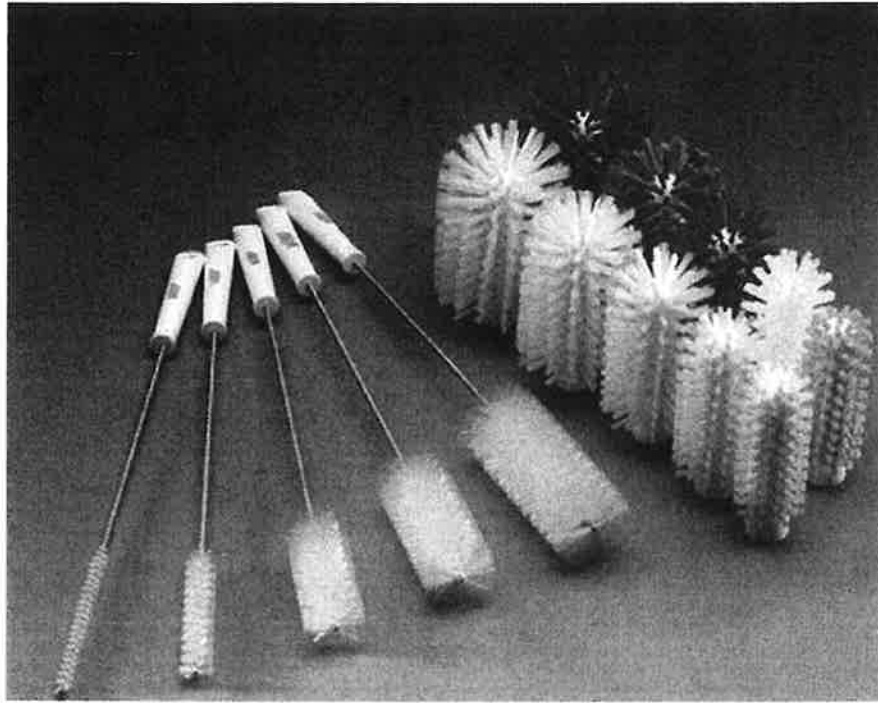


Figure 30 Examples of colored and white brushes used in cleaning

Chapter 6: Cleaning Office Buildings

As mentioned above there are many different areas in office buildings, hospitals, and schools that require cleaning. Office buildings have restrooms with toilets, urinals, trash cans, and sinks to be cleaned. They also have restaurants, cafeterias, and kitchens that are food service areas. In addition, office areas have entry ways, hallways, and classrooms that must be cleaned. And finally there are specialized areas such as gymnasiums and laboratories that must be cleaned. In this chapter we will address cleaning the areas mentioned above; as well as mirrors, walls, floors, window coverings, upholstery, televisions, and computers.

CLEANING RESTROOMS

We will start with cleaning restrooms. The fact is that at least 50 percent of the public's complaints about buildings concern the upkeep of restrooms. According to industry professionals, there is an increase in public awareness of what one can acquire from dirty restrooms. Because of this, owners, operators, manufacturers, distributors and suppliers are all working hard to come up with systems and processes to make cleaning easier, safer, faster and better.

Restroom Deep Cleaning

Indeed, relatively recent innovations in restroom cleaning range from ergonomically designed toilet-bowl brushes and environmentally safe citrus-based cleansers to color-code and even touch-free cleaning systems.

Combined with old-fashioned common sense and attention to detail, the new cleaning improvements make it easier and safer than ever to leave a restroom spotless.

Because the definition of 'clean' is very subjective and varies from one environment to another, it is important to determine what is required in terms of cleanliness. One definition of clean is "free from dirt or impurities."

With the exception of critical care areas, such as those found in some health care facilities or food service environments there are few, if any, broadly established cleaning standards.

Toilet Cleaning Today

A workable cleaning schedule is important. Most restrooms are cleaned once a day and sometimes monitored throughout the day. Restrooms with high traffic volume, such as those in airports, restaurants and other establishments may need attention hourly. According to experts, managers and operators who thoroughly assess the overall use of each restroom in their facility will have far fewer restroom complaints.

Those who devise cleaning schedules that accommodate the need for regular cleaning and maintenance, as well as incidental and as-needed cleaning will not hear any complaints.

Top Five Restroom Complaints

Once the cleaning basics have been established – how clean and how often – cleaning professionals still face every restroom’s “Top Five.” These are the five typical restroom complaints and the most common cleaning challenges that workers face. They are:

- 1) Cross-contamination hazards
- 2) Soap and towel dispensers that don’t work
- 3) Unsightly garbage
- 4) Soiled or stained surfaces
- 5) Persistent odors

CROSS-CONTAMINATION

There are a number of ways to prevent the spread of germs when cleaning a restroom.

Experts say, first kill the germs by using disinfectant solutions properly. In order to achieve disinfection, it is important to carefully follow label directions on the cleaner container.

More often than not, the directions will include specifics on how the cleaner is to be applied, as well as the length of time that it should remain on surfaces in order to achieve the required disinfection levels.

Other recommendations include using a color-coded system when cleaning. With a system like this, tools that are one color can be used for cleaning toilets, while a different color can be reserved for intense work.

This type of system will make sure that management, as well as the cleaning staff, doesn't use any of these tools outside the restroom.

SOAP AND TOWEL DISPENSERS THAT DON'T WORK

This is a case where back-ups make sense.

Managers may want to consider offering patrons both hand towel machines and hand blow dryers. This is an alternative solution if one or the other is out of order. Frequent service, repair, and replacement of machines also help eliminate this common complaint.

UNSIGHTLY GARBAGE

Regardless of whether a restroom is disinfected properly, unsightly garbage can make it appear unsanitary. Studies show that people often use a paper towel on door handles when leaving restrooms. If a garbage receptacle isn't near the door, they often drop the towel on the floor.



Figure 31 Unsightly Garbage Container

Analyzing traffic and these types of use patterns will help determine whether alternate placement or additional receptacles are needed.

SOILED OR STAINED SURFACES

An obvious first step in cleaning would be removal of visible soiled surfaces.



Figure 32 Dirt behind a Toilet

The nature of the surface and the soil will affect which tools and cleansers to use. For instance, degreasers might be just the solution for some of the surface stains found in fast-food restaurant facilities.

Industry manufacturers advise that users proceed with caution when using various cleansers. There are many very aggressive cleaners which can remove soil from surfaces, but will also harm finishes.

Surface damage only makes maintaining cleanliness and appearance that much more difficult in the future. Thus, selection of the mildest, yet effective cleaners is the best approach to balance these factors.

PERSISTENT ODORS

When dealing with this common complaint, building managers are advised to look down – at the grout or the floor drain.

Often times, odor-causing bacteria can be found in grout lines where mops may not reach. If this is the case, it may be helpful to re-evaluate the products used to do this cleaning.

Bacteria must be killed to remove odor. Other times the best thing to do is to look up, because light fixtures and even ceilings can harbor bacteria or mildew spores. It is important to note that thorough ventilation can reduce odors in high humidity areas such as restrooms. Make sure all air vents are cleaned.

Managers dealing with a lot of in and out restroom traffic, such as those found in schools and airports should carefully assess regular cleaning schedules to make sure these problems are addressed.

INNOVATIONS

When it comes to cleaning restrooms, manufacturers found that a thorough assessment of cleaning procedures is what led to some of the best innovations.

After spending many years evaluating restroom cleaning and the various procedures called for, manufacturers found two overall problems.

First, there was a very high turnover among employees and training was an issue within janitorial departments.

Second, many janitorial departments rarely updated the tools they used for cleaning, many of which were not ergonomically designed.

In response, the cleaning supply industry soon introduced various ergonomically designed tools. These were designed to reduce back pain through the use of longer handles, which also kept a worker's face away from the toilet bowl containing chemicals and fumes.

Manufacturers have commented that the use of these types of products will not only make cleaning easier and safer for workers, they will also result in worker retention.

Many of the improvements offered by manufacturers, suppliers, trainers and others in the industry have had a similar value-added impact on restroom cleaning.

Microfiber mop heads and cloths adhere to dirt more efficiently and are easier to lift than traditional "spaghetti" mops because they weigh less.



Figure 33 A Spaghetti Mop

Why use microfiber supplies?

Microfiber cleaning cloths provide a non-toxic and chemical free cleaning solution. They are outstanding for allergy and asthma sufferers, as well as anyone with chemical sensitivities. They also provide a healthier cleaning solution because microfiber cleaning supplies can be used without cleaning agents, soap, or detergents. In addition they are gentle on furniture, mirrors, windows, and porcelain as the fiber is fine and it does not leave scratches, mist or marks.

Microfiber mop heads and cloths are also more environmentally friendly because they use less water; they're washable and reduce the amount of trash left at the end of the cleaning day.

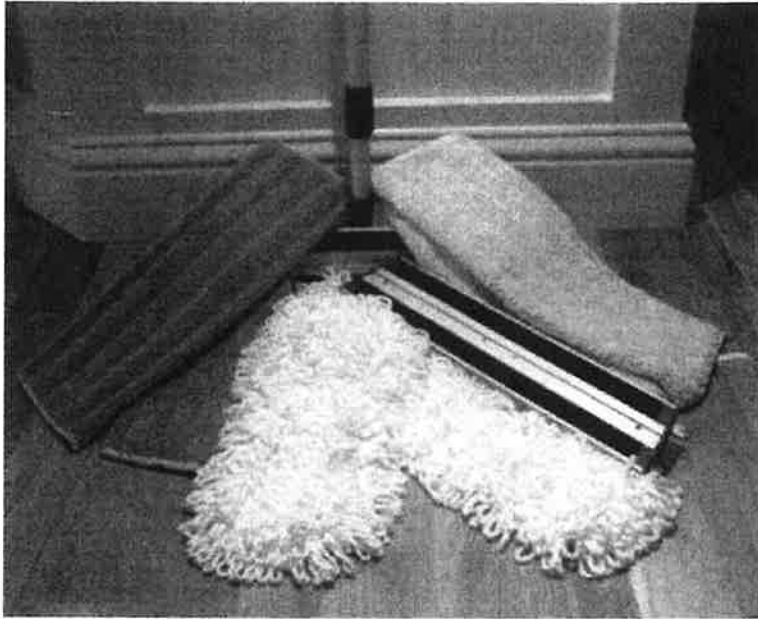


Figure 34 Micro fiber mop system

Environmentally friendly green cleaning is a trend that has grown stronger in recent years. Many manufacturers have introduced tools that are designed specifically for recycling whenever green cleaning tools wear out. Instead of replacing the entire tool when a part breaks, many manufacturers provide replacement parts.

In addition, many workers use squeegees and water to clean restroom mirrors and windows. The benefit is that departments will use fewer chemicals and will not find trash bins filled with paper towels as a result of cleaning.

Cleaning chemicals should also be considered in green cleaning. There are many manufacturers that provide cleaning products certified with Green Seal.

These new innovations make it easier for companies to accept green cleaning into their programs.

WHAT DOES CLEANING GREEN ENTAIL?

First, a definition Green Cleaning is cleaning to protect health without harming the environment. Basic principles of Green Care are listed below.

Focus on entryways inside and out. An important goal in cleaning green is to trap and remove dirt and pollutants before they enter the building and to frequently clean the entrances and entryway mats.

Minimize particles and chemicals in the air by mechanically capturing dust and dirt, using course spray for chemicals and applying the cleaner to the cloth rather than spraying the surface to be cleaned.

Use chemical management systems for accurate product dilution. Train employees to use chemicals properly to minimize waste and maximize cleaning efficiency, an important element of cleaning green.

You should empty vacuum bags at the end of shifts or when half full for cleaner and more efficient operating.

Ensure proper vacuuming, extraction, rinsing and drying. Carpets can be a host for moisture problems and mold growth. Green cleaning means minimizing these problems.

Focus on preventative measures. Janitorial staff washes their hands and keeps equipment clean and well maintained.

Focus on touch-points. These are door handles, bright work and other areas where people come in contact with the facility or its fixtures. Focusing here makes cleaning green easier.

Apply disinfectant in restrooms properly and make sure the chemical has proper dwell time so that soil is thoroughly removed using less product. Use labels on chemical cleaners for proper use and review the Material Safety Data Sheets.

Promote safety and prevent cross-contamination. Safer products and proper use and storage of chemicals help create a safer environment. As discussed earlier, color-coded tools ensure that pollutants don't get carried from one area, such as a restroom, to another room.

Whenever possible, use Green Cleaning Chemicals and Products. Green Seal's Standard for Industrial and Institutional Cleaners (GS-37) certified chemicals for general purpose, washroom, glass, and carpet cleaning.



Figure 35 Green Seal Symbol

Use hand soaps that do not contain antimicrobial agents except where required by law or regulations for example healthcare or food preparation.

Microfiber dusting cloths and flat mops to collect dust and dirt pick up dust with minimal water and chemical use. These out-perform traditional dusting and mopping materials and can often be used to remove soils without the need for chemical compounds. Micro-fiber materials can be washed and reused to minimize paper towel waste.

Use of Effective Janitorial Equipment

One example of effective janitorial equipment that is environmentally friendly is the high-speed burnisher with dust control attachments that captures fine particles.



Figure 36 High Speed Burnisher with dust control

Carpet extractors and automatic floor scrubbers that reduce water consumption are also effective janitorial equipment.

Green cleaning includes the use of “Green” Paper products. These paper products are rated for recycled content in janitorial paper products bleached without the use of chlorine or its derivatives. In addition, paper products dispensed from large rolls to minimize packaging and waste are used in Green cleaning. Folded paper towels are discouraged.

“Hands-free” paper towel dispensers that reduce the potential for cross-contamination and high-capacity dispensers that promote waste-reduction by controlling towel usage are on the list of “Green” Paper products.

For all the innovations in the industry, the need for common sense and attention to detail is as great as ever. Training employees properly is a task that experts say should always be at the top of a building manager’s “to do” list. Industry professionals emphasize that it is important to have the proper tools when cleaning, but it may be even more important to have the proper training.

Attention to Detail

Just look at a restroom, any restroom. The entire area may be clean and sparkling, but what about the dirt build-up around stall posts or behind toilets or baseboards. Everything must be cleaned properly, or the restroom isn’t clean.

When cleaning toilets, one of the most important parts is the underside of the lip of the toilet. This is where urine and feces can be splashed and lime, calcium and rust stains can build up. That’s where bacteria and germs can form quite easily causing a filthy toilet. Cleaning the underside of the toilet is extremely important.

Dusting a restroom is also a critical part of your job. Dust, bacteria and germs can settle in vents, on tops of overhead ledges and, of course, on vents.

Cleaning and Sanitizing

Remember there is a difference between cleaning and sanitizing. Cleaning is washing or wiping a surface. Cleaning removes dirt, dust and debris, but it doesn’t kill bacteria. Sanitizing kills bacteria.

There are two ways to kill bacteria.

1. One is to use high temperature water, similar to very hot water used in a dishwasher. Hot water sanitizes the dishes and kills bacteria. That's not logical for restrooms, but you can use an approved sanitizer after cleaning to kill bacteria. Steam cleaners are commercially available.
2. Another way is cleaning and sanitizing. Cleaning and sanitizing is required in making surfaces free of bacteria. Remember that cleaning and sanitizing are two different systems and both are required when servicing restrooms and other areas.

Some sanitizers are called disinfectants and some products combine cleaning and disinfecting ingredients into one product. These combined products work well only on surfaces that are already relatively clean. For dirtier surfaces it is important to clean first and then apply a separate disinfectant.

For the disinfectant or sanitizer to be effective, it must remain in place for at least 10 minutes.

Deep cleaning of restrooms needs to be done at least weekly. However, a deep cleaning may also be required when cleaning a restroom for the first time, or when you encounter a particularly dirty situation. High traffic restrooms may need a deep cleaning once a day even if routine cleaning is done more frequently.

Most deep cleaning can be done with regular chemicals by mixing with less water so that they are more effective. In addition, it may be necessary to spend more time removing soils using brushes and scrub pads.

Steps to Cleaning a Restroom

Don't allow your restroom to become the source of customer or employee complaints. Adhere to the following guidelines to insure a cleaner, healthier restroom environment.

GET READY TO CLEAN.

When you are preparing to clean a bathroom, first make list of duties and cleaning supplies that will be required for each job. You should make certain the supply closet is clean and contains the proper supplies and equipment. An example list of cleaning supplies is provided below.

1. Disposable Latex Non-Medical Gloves—these gloves come in large, medium, and small sizes.



Figure 37 Gloves for cleaning

2. Safety Goggles or Safety Glasses



Figure 38 Safety goggles

3.Toilet Bowl Swab



Figure 39 Toilet Bowl Swab

4.Microfiber Mop System

5.High Density Trash Liners 32 Gal.

6.General Purpose Cloth

7.Extendible Lamb's wool Duster

8.Glass Cleaner—Windex® is a common commercially available glass cleaner

9.Cleaner/Disinfectant—Lysol® Brand Disinfectant All purpose Cleaner with Bleach and Antibacterial Scrubbing Bubbles® Bathroom Cleaner are common Cleaner/Disinfectants. There are other commercially available Cleaner/Disinfectants for professional cleaning services.

10.Kleenex® Cottonelle Toilet Tissue

11. Health Guards Regular Toilet Seat Cover Refill



Figure 40 Items for cleaning the bathroom

12. Sanitary Napkins or Tampons

13. Paper Towels

14. Hand Soap

15. "Wet Floor" signs

DISINFECT TOILETS, SINKS AND SURFACES

Before disinfecting toilets, sinks and surfaces make sure you are wearing the proper safety items such as gloves and protective eyewear. Be sure to review the MSDS for each chemical that you use. Spray all fixtures with the correct chemicals to allow time to "soak" in. Wipe clean.

RESTOCK EXPENDABLE SUPPLIES

When you are restocking expendable supplies, always make sure you fill the dispenser with the correct size paper or soap product. Be sure to secure the dispenser after it has been filled.

EMPTY, CLEAN AND RE-LINE WASTE RECEPTACLES

The next job will be to empty, clean and re-line waste receptacles. You should make sure all litter is picked up prior to emptying the receptacles. Use the correct size liners and taper the excess liners by tying on one corner.

SWEEP OR DUST MOP FLOORS

Depending on the floor surface, you will either sweep or dust mop the floor.

CLEAN SINK AND COUNTERS

The next job will be to clean the sink and counters. First, remove all debris from counters. Start at the backsplash of the counter and work towards the drain. Be sure to dry all surfaces.

CLEAN MIRRORS

To clean the mirrors, start in one corner and work from right to left. Use circular cleaning motions for best results. Inspect for streaks and smudges.

SPOT CLEAN WALLS, PARTITIONS, BRIGHT WORK

Spot cleaning is the next job. Using the proper chemicals spot clean all vertical surfaces starting at the bottom and working your way up. Clean all bright work. Bathrooms don't just need to be

clean, they need to shine. All that white porcelain, bright work and tile work demands weekly, if not daily attention.

Cleaning Toilets

WHAT YOU NEED:

1. Goggles or glasses.
2. Toilet brush.
3. Gloves.
4. Cleanser for inside of bowl.
5. Cleanser for outside of the toilet.
6. Paper towels or cloths.

REMOVE EVERYTHING FROM AROUND THE TOILET.

Cleaning the toilet is a messy job, and there's always the chance of splashing cleanser or toilet water outside of the actual toilet. Prevent extra cleanup by removing all excess items from around the toilet. Don't forget to remove anything on top of the tank to prevent dropping items into the bowl during cleaning.

FLUSH AND ADD CLEANING SOLUTION.

Flush the toilet with the lid down to prevent splashing or spraying. Add your choice of powdered, liquid, or gel cleanser to the bowl. Try to apply the cleaner as close to the toilet rim as possible to prevent diluted cleanser.

CLEAN THE EXTERIOR OF THE TOILET.

While the cleansing solution soaks into the toilet grime in the bowl, clean the outside of the toilet. Start at the top to prevent dripping on already clean surfaces.



Figure 41 Cleaning a toilet

Spray the tank, handle, and tank edges with cleaner and wipe down.

Next do the outside lid of the toilet.

Finally wipe down the entire bowl. Start with the sides and front before cleaning the bottom edges of the toilet where it meets the floor.

CLEAN THE TOILET SEAT.

The toilet seat should never be neglected. It is the part of the toilet that comes into actual contact with people, and it needs to be cleaned thoroughly. Raise the seat. Spray the seat, inside lid and the rim of the toilet with cleanser.



Figure 42 A urine stained toilet lid

Wipe down the lid, seat, and hinges at the back of the toilet seat. Some toilets have hinges that will pop open to allow better access for cleaning.

CLEAN THE INSIDE OF THE TOILET BOWL.

Begin cleaning the bowl from the top down. Always begin scrubbing under the rim first. Look under the rim to get all the stains and grime scrubbed away.



Figure 43 Cleaning the Inside of the Toilet

Even though there are many commercial products available, Lime-A-Way® is a commercial product that is a concentrated blend of mild organic and mineral acids formulated to remove calcium and other hard water mineral deposits from under the rim of toilets. It has a pleasant fragrance and is easy to use. It removes rust, calcium and lime build up from toilets and it effectively cleans even the toughest hard water stains.



Figure 44 Lime A-Way a product for removing rust and calcium build up under the lip of toilets

Next scrub the bowl. Finally scrub the hole at the bottom of the toilet.



Figure 45 Dirty toilet bowl and hole at bottom

Always flush the toilet with the lid down.

WIPE UP ANY DRIPS OR SPILLS.

Wipe up any drips of cleanser or water that may have occurred.

Put away tools and trash. Replace the items removed at the beginning of the cleaning process.

TIPS FOR CLEANING TOILETS

1. Wear eye protection when cleaning a toilet. It prevents splatters of toilet water and cleaner. You may also want to use gloves to prevent contact with your hands.
2. Flush the toilet with the seat lid down to prevent splattering and splashing.
3. Do not use sponges when you scrub a toilet. Sponges are a great way to breed bacteria, and there are already enough in bathroom. Paper towels are great options because they are thrown away. If you use reusable cloths or microfiber cloths, wash them immediately in their own load on hot water with bleach.

In summary, to properly clean a toilet you should use the appropriate germicide to clean the seat cover top and bottom. Then lift seat cover and clean underside and top of toilet seat, under side and bowl rim, and finally clean the handle and exposed plumbing. Flush toilet with seat down and leave the seat up to indicate you have cleaned commode.

Cleaning Urinals

Some cleaning tools and materials for cleaning urinals are listed below.

1. Bowl swab
2. Trigger sprayer
3. Clean cloths
4. Gloves and goggles
5. Toilet bowl cleaner
6. Cleaner disinfectant, liquid or foam aerosol

In addition to toilets, urinals need to be cleaned, disinfected and deodorized. Disinfecting the urinal reduces the growth and spread of bacteria.

PROCEDURES FOR CLEANING A URINAL

Remember to put on gloves and goggles, and then clean the inside of the urinal.

First, apply 1 to 2 ounces of bowl cleaner evenly onto the bowl swab. Then swab the entire inside surface, under the rim, and where the water outlets are located.

Next, flush urinal and rinse bowl swab thoroughly. Set bowl swab aside, placing it into a carrying container.



Figure 46 A Urinal

Clean and disinfect the flush handle and all the chrome around the urinal. Wipe it dry.

Next, clean the outside of the urinal by spraying with a cleaner disinfectant. Pay special attention to the underside of the outside of the urinal. Wipe with a clean cloth.

Use a new cloth to start the next urinal. Toss used cloth to be laundered.

Mopping Restroom Floors

Cleaning Tools and Materials needed for mopping restroom floors.

- 1.Pump up sprayer and one bucket with wringer or Two buckets with wringers
- 2.Wet mop
- 3.Broom and dust pan
- 4.“Wet floor” signs

5. Gloves and goggles

6. Cleaner/Disinfectant

7. Cleaning Procedures:

The bathroom floor is mopped to clean and disinfect it and to eliminate odors and bacteria.

PROCEDURE FOR MOPPING A RESTROOM FLOOR

First, put on gloves and personal protection equipment. Remove all movable obstacles from the floor.

Sweep floor and pick up pile with dust pan.

Position the mop bucket or buckets outside door.

Place "Wet floor" sign at the entrance.



Figure 47 Wet Floor Sign

Use either the spray down, mop up method or the two bucket method to get cleaner disinfectant on the floor.

Apply product on floor, starting in the farthest corner.

Work moving backwards towards the door.

Be sure to get disinfectant around toilets, under urinals and under sinks.

Allow to stand amount of time recommended by manufacturer's directions.

Dip wet mop into clean water rinse. Wring out dry.

Start at the farthest corner and pick up disinfectant solution that is on the floor.

Dip mop in rinse water frequently. Continue until all disinfectant solution has been picked up.

CLEAN UP AFTER MOPPING

Always clean up after mopping the restroom floor. Most facilities have a janitor's closet with a deep well sink and cabinets for supplies. Use this sink to empty the bucket or buckets and sprayer should. And then, you should rinse the mop. All of the tools and materials should be stored properly.



Figure 48 Another Wet Floor Sign for Bathroom

REMOVE CAUTION SIGN AND INSPECT WORK

Review all of the jobs that you just completed. Make sure all dispensers are full, mirrors are streak free, and all fixtures are clean.

Cleaning a Laundry

Cleaning Tools and Materials needed are listed below.

1. Vacuum with hospital grade filter, dusting tool
2. Deck brush
3. Mop bucket with wringer
4. Clean cloths
5. Wet/dry vacuum
6. Pump up sprayer
7. Trigger sprayer
8. Clean bucket for rinse water
9. Gloves and goggles
10. Cleaner disinfectant

Laundry rooms must be cleaned to prevent possibility of cross contamination. The laundry is a central location for linen that gets redistributed throughout the facility.

Procedure for Cleaning the Laundry Room

DAILY PROCEDURES

Daily procedures for cleaning the laundry room will include

First put on gloves and goggles.

Next, you should the empty waste receptacles. Remember to tie the liner and dispose of the waste properly. And then, spray the waste receptacles with disinfectant from trigger sprayer, inside and out and wipe them dry with a clean cloth.

Damp dust with a cleaner disinfectant sprayed on a cloth. Rinse used cloth in clear water, reapply disinfectant to continue. All sills and ledges, outsides of wash and drying machines and

loading doors should be cleaned. Tables for folding linens should also be cleaned. Vacuum floor surface to remove all lint.

Using a deck brush and water from the mop bucket, remove any accumulations of soap on the floor surface.

The last job is to damp mop floor with a cleaner disinfectant starting at the back of the room and mopping to the door. Remember to place the "Wet Floor" sign at the door. Pick up solution with a wet dry vacuum.

WEEKLY PROCEDURES

Wash walls completely. To wash the walls fill the pump up sprayer with diluted cleaner disinfectant. And then, spray walls from bottom up. Next, wipe walls dry.

Clean any or all overhead pipes with vacuum dusting tool.

Wash all linen carts. Use trigger sprayer and spray all surfaces with cleaner disinfectant. Let the solution set for a few minutes and then wipe dry.

PERIODIC CLEANING PROCEDURES

The linen storage cupboards should be emptied and cleaned with a cleaner disinfectant.

Washing Walls

Cleaning Tools and Materials needed for washing walls and wall partitions are listed below.

1. Trigger sprayer
2. Clean bucket
3. Clean cloths
4. Gloves and goggles
5. Cleaner disinfectant

6.Cleaning Procedures:

Walls and Wall Partitions are washed because dirty walls are unsanitary. Dirt acts as a breeding ground for bacteria. In addition, dirty walls make the room appear dull.

PROCEDURE FOR WASHING WALLS AND PARTITIONS

Put on gloves and personal protection equipment.

Using a trigger sprayer filled with diluted cleaner disinfectant, spray solution on walls, starting from the bottom and working your way up.

Wipe walls clean from the top down using a clean cloth.

Rinse cloth frequently in clear water rinse.

Thoroughly clean the underside of the partitions. This area becomes dirty from urine splash and needs daily attention.

Window Washing

Cleaning Tools and Materials needed for washing windows.

- 1.Window squeegee
- 2.Clean cloths
- 3.Window tool and bucket or Trigger sprayer
- 4.Window cleaner
- 5.Gloves and goggles

6.Cleaning Procedures:

You should pay particular attention to cleaning windows. Clean windows add to the overall impression of cleanliness. More light comes in clean windows, improving the outlook of those inside the building. Windows need to be cleaned more often in colder weather.

Remember, condensation and temperature fluctuations encourage streaking and dust accumulation on windows. In addition, oils in exhaust and cooking deposit on the glass surfaces in colder weather.

PROCEDURE FOR WASHING A WINDOW

Put on gloves and goggles. Open drapes and raise venetian blinds or shades.

Next you should clear window sill of obstructions. Clean window sills inside and out using glass cleaner and a clean cloth.

Cover window with window cleaner solution using a trigger sprayer or window tool.

USING A SQUEEGEE

Remove solution and dirt from window using a squeegee. Move the squeegee from side to side or in a figure eight motion, or move it from top to bottom of the glass. Wipe off squeegee with clean cloth after each stroke.



Figure 49 A Squeegee

After using the squeegee, wipe the glass dry with a clean cloth. When finished, wipe off window sills with a clean cloth. Clean window frames with window cleaner and a clean cloth.

When complete, close drapes and put blinds or shades in place.

Clean and return tools and materials to storage area.

Dusting

Prevent dust by using two entrance mats at each entrance. One just outside the door and one just inside the door will reduce the amount of dust, dirt, and debris that enters your facility.

Check and maintain your air filters to make sure they are functioning properly. Air filters will last between 1-3 months, but should be changed as they become clogged with dirt and debris.

By keeping windows closed, you'll prevent dust and debris from blowing into your home. Double check your window and door weather-stripping to make sure it is still functioning properly.

There are many dusting products on the market, but each one has its own set of pros and cons. Use the right dusting tool for your jobs. Microfiber cloth dusting supplies is a favorite.

If you use a furniture oil or polish, be sure to follow the directions and don't overuse the product. Overuse or improper use can lead to a buildup on your furniture or clouding of the wood surfaces.

Dust from top to bottom to prevent going over surfaces more than once. Sometimes you may need to wet dust after you dry dust. Always dry dust first. Be careful about allowing even a small amount of water on wood surfaces.

CARE FOR FLOORS

CARE FOR WOOD FLOORS

Regular cleaning keeps wood floors and furniture looking their best. All you need is a good vacuum or microfiber dust mop, a soft cloth, and Murphy Oil Soap. It's easy!

Vacuum your floors and dust furniture daily. Gritty dust can scratch wood surfaces. For effective vacuuming, use a Windsor with Sensor technology. It will automatically adjust to your floor type



Figure 50 Windsor® Sensor Technology Vacuum Cleaner

And for effective floor cleaning, use the microfiber mop system for both dry dusting and wet mopping. Mop up spills right away to avoid stains.

Cleaning wood floors regularly with Murphy Oil Soap Original Formula is easy. Dilute Murphy's in a bucket according to directions. Use a microfiber wet mop.



Figure 51 Murphy® Oil Soap

Wipe up any excess water with a soft, dry cloth or dry dust mop.

Murphy's isn't just for wood flooring and furniture. It also safely cleans laminate flooring and many other surfaces.

CLEANING MARBLE FLOORS

Marble is often used for floors in commercial office buildings and hotels in lobbies in entry ways, halls, and lobbies. Janitors are required to maintain these floor materials.

Marble is generally polished, and unless sealed it is porous and easily stained. Marble is also able to be etched by acids. Marble may be stone, but it stains easily, so you need to wipe anything off that is spilled on it immediately, as you would on a wood surface.

Regular cleaning includes washing marble surface with lukewarm water and wipe dry with a clean cloth. Wiping marble surface with a damp chamois is suggested as it will not leave streaks.

Unsealed Marble that has become dull can have a shine brought back to it using a commercial marble cleaner and polish. For badly damaged marble surfaces, if it's scratched or etched by excessive wear, you will most likely need to have it professionally polished. Marble professionals have the right equipment for the job and know how to use their tools properly.

There are different types of stains that can affect marble. Organic stains, such as tea or coffee. These stains will need a poultice soaked with 20% peroxide and a few drops of ammonia.

Stains that are oil based, such as the oils from butter, lotions need attention right when the spill occurs. You can do this by spreading the surface with ordinary household corn starch. Let it stand for a few hours, Scrub with a stiff brush and hot sudsy water. Or wipe with a dampened cloth of ammonia.

A commercial rust remover can be used to remove rust stains from an item such as a metal lamp on the surface or metal container. Acid stains, from citrus fruits juices and carbonated beverages should be wiped up immediately; they can etch and dull the surface. If stains seem to be impossible to remove, your Marble professional will be able to help remove them and bring the beauty back to your surface.

CLEANING LINOLEUM AND VINYL FLOORS

Proper care of your linoleum or vinyl floor prevents damage, extends its life and keeps it looking like new for years. You should always vacuum or dust hard floor surfaces before mopping.

Linoleum floors generally require only warm water for cleaning. Most detergents won't rinse clean leaving behind a sticky residue. That residue becomes a magnet, attracting dirt off the bottom of shoes. It builds up, deteriorating the sealant and leaving you with the hard job of stripping and waxing.



Figure 52 Linoleum Flooring

If you find your floor requires a cleanser, use Ivory® Liquid dish soap or equivalent. Fill your bucket with suds, mop away then rinse. Ivory rinses clean so the sticky buildup never causes problems. Other detergents can be too harsh for the floor so stick to Ivory or an equivalent. Mix dish soap in a spray bottle of water as an all-purpose cleaner. It's inexpensive and quite a good cleaner.

Some linoleum floors have grooves so deep you can sink a submarine. Grab a nylon bristle brush other brushes might scratch the floor. Then, fill your bucket or sink with warm water add a good squirt or two of the dish soap and scrub the floor; and then rinse. Your floor needs this deep cleaning only twice a year.

What to do about black heel marks. Not a pretty sight. Spray a little WD-40® on a towel; lightly rub and they disappear without scrubbing. Rinse thoroughly with sudsy water or the floor might be slick.

Carpet Care

Maintaining carpet through regular vacuuming, deep cleaning, and stain removal has many benefits:

- Extend the life of the carpet as ground in soil particles weaken carpet fibers
- Provide a fresh clean look to a room.
- Making a room smell better.
- Helping allergy and asthma sufferers by removing germs and dust, thus better
- Indoor Air Quality.

VACUUMING

Dirt and grit damage carpet by rubbing against the fibers. Regular vacuuming prevents the deep abrasion that ruins carpet. Remember to change the disposable bags often. Loose threads should be cut off with a scissors.

DEEP CLEANING

Carpet should be deep cleaned with hot water extraction or steam cleaning every 12 to 24 months. Steam cleaning involves spraying a high pressure solution of water and detergent onto the carpet and vacuuming the dirty solution out.

SPOT REMOVAL

It is very important that all stains get prompt attention since stains can be better cleaned right after they happen. Follow these steps when removing a stain.

Remove excess wet stains by blotting with a clean absorbent cloth (use a wet/dry vacuum for large stains) and dry stains by scraping with a dull edge. Always blot or sponge stains, scrubbing can spread stains and damage carpet fibers.

Apply cleaning solution to a clean absorbent cloth or paper towel. Do not soak the carpet. Working from the edges of the stain to prevent spreading, blot until no more stain is absorbed. If necessary, use your fingertips to work the solution to the base of the stain.

Wait 3 minutes for the solution to work

Apply clean water to another cloth or paper towel. Blot to remove any residue.

Carpet fibers may later absorb deep stains. More cleaning may be necessary.

Allow carpet to dry, vacuum or brush carpet to restore its texture.

Blind Cleaning

When it's time to clean your blinds and shades, even your best friend is hard to find. But there are some simple and effective ways to clean blinds and shades with minimal effort.

ALUMINUM MINI-BLINDS

Use ordinary soft, clean dust cloths, chemically treated dust cloths, vacuum cleaner brush attachments, or other available ordinary household aids. The paint surface of the slats is quite smooth and dust is easily brushed off if done at regular intervals.



Figure 53 Vacuum Cleaner Brushes

To vacuum, use the brush dust head attachment and tilt the slats first up, then down but not entirely exposed to reach the entire top and bottom surfaces.

To dust, use a soft clean cloth or chemically treated dust cloth and tilt the slats as above.

To wash, use a damp cloth or sponge and mild detergent. Use warm or cold water - NOT hot water. Tilt the slats as above. Protect the floor or sill from excess water. The blind can also be taken down, placed in a bath tub of mild soapy water, then rinsed clean, wiped dry, or allowed to dry completely in the open air.

WOOD BLINDS

Care must be taken when cleaning real wood blinds. Washing the blind is NOT recommended. Although the wood is sealed, water or even excessive dampness may cause warping or discoloration of the slats.



Figure 54 Wood Blinds

Since the surface of the slats is smooth, dust may be easily brushed off at regular intervals using a clean soft dust cloth or a vacuum cleaner brush attachment. Clean them as described above.

FABRIC PLEATED SHADES

Most of the cellular shades, like the Hunter Douglas Duette shade, are anti-static, and they require very little cleaning. A light sweep with your vacuum cleaner brush attachment is all that is needed to keep them dust free. For a more thorough cleaning, the entire shade assembly may be gently wiped with a soft damp cloth using lukewarm (not hot) water.

Take special care when handling opaque blackout shades to avoid creasing, and do not immerse them in water. For tough stains, spot clean with a mild detergent. Some shades, like the Graber CrystalPleat® have a "soft hand" fabric.



Figure 55 Graber Crystal Pleat Shades

Be very careful when trying to clean these types of shades as they tend to "pill". When a fabric pills it becomes covered in small balls of matted fiber because of rubbing.

Computer Rooms

How to clean computer rooms

Things you will need:

1. Air duster



Figure 56 An example of a commercially available air duster

2. Microfiber duster
3. Vacuum cleaner
4. Cotton towel

The flooring beneath our computer desks needs to be cleaned to ensure our computers stay in top working order. Dirt and dust particles building up on the floor below your computer can affect the health of your computer. Clean floors will diminish the risks of fouled circuitry. Regular cleaning of your computer room floors will ensure that your equipment will operate efficiently.

Make sure your computer is turned off before you start. Be careful not to unplug or loosen any plugs.

Spray the cords underneath your desk with an air duster. Get off as much loose dirt and dust particles from the computer cords as possible.

And then, run a microfiber dry duster over any loose cords on the computer room floor. Remove dust from any outlets and the underside of cords.

Use a hose attachment with an angled edge on your vacuum to remove the dirt from your computer floor. Lift up the cords to get underneath. Do not use the vacuum's sweeper brush on the cords.

Immerse your cotton towel in warm water and wring it out. With the barely wet towel, work under your computer desk to remove any last speck of dust particles from beneath your desk. Do not put the wet rag on the computer's cord.

Dust under computer desks every week. On a monthly basis, follow the entire computer floor cleaning routine.

UPHOLSTERY CLEANING

Upholstered furniture can be very expensive. If you have a sofa, chair, loveseat, or some other type of upholstered furniture that is in good condition but just dirty, these upholstery cleaning tips will save money and time.

The key with upholstered furniture is choosing the appropriate type of cleaning method. For example, an antique chair that is hand embroidered would require a different cleaning technique than a sofa that was store bought.

GETTING THE UPHOLSTERY STAINS OUT

Maintaining clean furniture is part of having a facility where people enjoy working or visiting. With furniture, upholstery is just one aspect but an important one. Think about all the times people have eaten on the sofa, dropping bits of food or drink that leave stains. Then you have the dirty feet, dirty clothing, and just everyday wear and tear that can leave upholstery looking dirty and drab. Getting those stains out does not have to be painful.

The most important thing to remember when cleaning upholstery is to consider the fabric. If you are unsure, you can check with the manufacturer's information. Then, before you start in cleaning a large stain, we recommend you work first on an inconspicuous area to ensure no discoloration

or damage is done. With that done, the following are a few of the more common stains found on upholstery and methods for removing them.

OILY CHEESE STAINS

Cheese is another food product that is seen spilled on upholstery. Again, things like nachos are a favorite snack food but they leave stains. For cheese, mix one teaspoon of mild, ph-balanced detergent with one cup of warm water. With a clean, white towel, blot at the cheese stain. Then mix one tablespoon of regular ammonia with one-half cup of water, again blotting the stain. Finally, blot the stain with clean water to remove any detergent or ammonia and let the area dry.

INK STAINS

Clients or employees may sit down with a pen in their pocket and before you know it, a stain is left. Ballpoint pens, especially blue, are common stain makers. Ink stains can be removed. The key is to be patient and persistent, as ink stains can be stubborn. Just make sure you only blot. Rubbing could cause the ink stain worsen. You have a number of options when removing ink stains.

Spray hairspray onto a clean, white towel and then dab at the stain, followed by blotting with a clean, dry towel

Treat a clean, white towel with isopropyl rubbing alcohol. Again, blot the ink stain, followed by a dry towel

Again, with a clean, white towel, apply nail polish remover or acetone. Blot the ink stain from the outside edges toward the center

Using a clean, white towel, use spirits of turpentine, blotting as with the other treatment options

Commercial products that work well on ink stains include Carbona or Afta; these are extra strength bio-enzyme cleaners that are formulated to get out tough stains. They come with a built-in applicator brush. With both, you would use a clean, white towel, dabbing the affected area.

COFFEE STAINS

Sipping coffee on an upholstered chair or sofa is everyday occurrence. To get rid of a coffee stain, mix one teaspoon of a mild, ph-balanced detergent with one cup of warm water, then blot from the outside in. Follow this with blotting the stain with a mixture of one-third cup white vinegar with two-thirds cup water. When finished, use a clean, white towel to absorb any excess, allow the area to dry.

VACUUM UPHOLSTERY

Upholstery cleaning tips are important since dust settles onto fabric more than hard surfaces. Therefore, regular cleaning to keep your upholstery looking and smelling clean is essential. In fact, we recommend you clean your upholstery furniture once every two months. Typically, you can use your regular vacuum cleaner with the appropriate attachment to keep it clean. Just keeping the dust off will help furniture last much longer.

Carpet Cleaning

Strive to clean your carpet as soon as you notice any spills or spots on you carpet's surface. This action alone can save lots of time and damage, as well.

Before cleaning any surface areas, use a small portion of your cleaning products over a small and hidden area to avoid damage or discoloring of the carpet.

Proper care of your floor prevents damage, extends its life and keeps it looking new for years. How do you properly care for your flooring?

Vacuum carpet regularly, and do not use liquid carpet shampoos to clean them. The shampoo can't be completely rinsed out leaving a sticky residue. That residue acts like a big magnet pulling the dirt from the bottom of your shoes. Use dry carpet cleaners instead. Stores selling vacuum cleaners carry them.

Getting out old shampoo becomes the trick. Rent a shampoo machine that cleans with water. You should mix 1 cup vinegar per 2 ½ gallons of water and clean according to directions on the vacuum cleaner. Go back over the carpet with warm water only. The vinegar pulls out the old

shampoo cleaning the carpet as well. It may take a time or two, but your carpets will be soft and free from grime. The hot water reactivates the shampoo already in the carpet providing the needed cleansing action.

Stains in carpet can be the difficult to remove. Never rub a stain, just blot. Rubbing breaks down the fibers and spreads the stain. Remove most food stains with shaving cream. Spray on and resist the temptation to rub it in then let it set 15 minutes. Rinse with a vinegar and water solution.

Club soda generally removes red wine stains. Remove red dye stains found in drink mixes, Popsicles, dog and cat food with a 30/70 solution of peroxide to water. Remember peroxide is bleach so test an inconspicuous spot first for color fastness. Apply the mixture, wait 30 minutes then remove as much moisture as possible and rinse with a vinegar/ water solution. If the stain remains add a bit more peroxide to the mixture and retreat

Brake cleaner also does a good quick job of removing most food stains. Dab a little on a clean cloth and gently blot the stain. Rinse with soap and water. Brake cleaner contains the same chemical professional dry cleaners use to clean stains in clothing. Do not pour brake cleaner directly into the carpet. It could dissolve the adhesive holding the fibers in the carpet.

Oops, someone's dog had an accident on the carpet and the stain and smell refuse all attempts at removal. First try an enzyme product. Pour on enough to saturate to the pad and treat an area twice as large as the stain. Urine hits the pad and spreads. Let it set a couple of hours. Enzyme products are available at commercial janitor supply stores, Pet stores, RV or marine stores. They are used in the holding tanks to dissolve solid material.

If the enzyme product does not remove all the stain or odor, baking soda and peroxide remain your best chance for success. Mix a 30/70 solution of peroxide to water adding 1/2 teaspoon of baking soda per cup of mixture. It bubbles and fizzes, but not before removing the stain and smell. Always test a spot first for colorfastness. Peroxide is bleach and may discolor the carpet. Blot up what you can with an old towel and rinse well with 1/3-cup vinegar per quart of water.

Oil, grease, magic marker and ink can also be the difficult to remove. Most janitorial companies or WalMart carry a product called De-Solv-it® Cleaner. WD-40® or Orange Clean Degreaser® all work wonders removing these stubborn stains.



Figure 57 Can of WD-40

Rubbing alcohol removes ink. Blot on allow to set 30 minutes and blot to remove. Rinse with sudsy water. Magic marker is generally permanent and you may not be able to remove it.

If you find bubble gum stuck to carpet, freeze it with ice cubes and chip off what you can with the blunt side of a kitchen knife. De-Solv-it® Cleaner removes the rest.

Wax on carpet can also be frozen with ice and chipped off. Wax needs heat for removal. Some newer carpets are quite sensitive to heat and scorch easily. So test an out of the way spot first. You can also use a hair dryer set to the hottest setting. Set your iron to a low to medium heat. The less heat you use, the less chance of scorching your carpet. Take a white paper towel or paper bag with no writing on it as the dye may transfer to the carpet, and then put the towel down on top of the wax. Then iron the towel for no longer than 2 seconds. Move the towel and redo if necessary. Generally once is enough.

Drapery Cleaning

Drapes are notorious for quietly accumulating dirt and absorbing odors, contributing to a room full of grime. In some cases it can aggravate asthma and breathing conditions.

Cleaning the curtains can be a tedious, time-consuming task. To clean drapes, you must haul down the drapes, wash, and re-hang them. Before you start there are some factors you should consider.

- Curtain fabric is rarely pre-shrunk like clothing. There's a risk that the fabric will shrink as it is washed and dried, which results in gaps and shortages when the drapes are re-hung.
- Heavy fabrics can lose shape when washed, turning all those carefully placed creases and pleats into just a memory.
- Rarely color-safe, drapery fabric can fade and lose color after a cycle through the washing machine and dryer.

Your company might consider having the drapery cleaning job done professionally; if one is available in your area.

Water can stain certain fabrics such as silk and alter the texture of others, changing the way the curtains hang and fall at the window

If you choose to rely on professional curtain cleaners, you may hire two types of cleaning companies. The first will remove the drapes to clean them; expect them be returned within three to five days. The second will use a method to clean the drapes while they remain hanging at the windows.

Companies that promise quick, easy service use one of two processes to do so:

1. The dry cleaning method is accomplished by spraying dry cleaning chemicals onto the drapes and vacuuming off the residue and dirt. Though convenient, keep in mind that the cleaning solvents can be extremely flammable, may linger in your facility and should not be inhaled.

2. The steam-cleaning method is when the cleaners use a controlled attachment to run a steam machine over the drapes, steaming away dirt and odors. This process does not work on water-sensitive fabrics such as silk where there is a risk of water damage.

It can be tempting to bring your drapes into local dry cleaners, but keep in mind that dry cleaning yards and yards of fabric can be costly. And since the chemicals used by commercial dry cleaners are designed to clean clothing, the results are never guaranteed when used to clean curtains.

Television Cleaning

TOOLS AND MATERIALS NEEDED

1. Trigger sprayer
2. Clean cloth
3. Gloves and goggles
4. Cleaner disinfectant

In a hospital setting, a television is cleaned and disinfected to reduce the spread of infections that originate in patient contact equipment.

For general public use, televisions are cleaned and kept dust free to increase its life.

PROCEDURE FOR CLEANING A TELEVISION

Put on your gloves and goggles.

Fill trigger sprayer with diluted cleaner disinfectant solution following manufacturer's directions.

Turn off the television. Never clean the television while it is turned on. If the patient/resident is watching it at the time, ask if you may turn it off for cleaning.

Spray disinfectant solution onto clean cloth. Never spray the disinfectant solution directly on the television!

Wipe the front and side vertical surfaces and the top and bottom of the television. Never wipe the back of the unit with a wet cloth!

Chapter 8: Food Service

CLEANING THE KITCHEN FOR THE JANITOR

Kitchen and food service safety is an important topic. Kitchens and food service areas are cleaned by janitors. They must know how to safely clean these areas. They must understand their responsibilities and how they differ from kitchen staff. This chapter covers such topics as slips and falls, cuts, responsibilities for safety, use of wiping cloths, spills, blocking exits, and storage of cleaners.

Slips and Falls

Any spill, especially water spills in the kitchen or food service area should be mopped, and then wiped dry with a dry rag or towel.

When grease, mayonnaise, salad dressing or other items containing oil are involved, after you clean the spill, use an abrasive powder such as a powder cleaner. This removes the oil, under the surface of the floor. This is particularly critical on tile and marble floors. If you don't use the abrasive powder, the floor will remain very slippery.

When cleaning up broken glass, never use your fingers to pick up the glass. Use a small broom and dustpan.

You should use caution signs in the area to alert others. If you see something on the floor that doesn't belong there, pick it up. Always wear approved safety resistant safety footwear in the kitchen. When you see water on the floor or some other hazard, clean it up!

About Cuts

Quite a few injuries occur from people opening boxes with box cutters. Box cutters are often called finger cutters. That's right, finger cutters. Devices such as this are designed to cut. They cut cardboard, skin, fingers, hands, arms, legs...that's their purpose to cut. When using cutters, you must keep your free hand out of the cutting path of the blade.

Responsibilities

Employers have the primary responsibility for protecting the safety and health of their workers by providing them with proper equipment that is working properly, personal protective equipment, and a safe working environment. Employees are responsible for following safe work practices. Basically your safety is your responsibility.

Use of Wiping Cloths

Kitchen staff knows to use separate wiping cloths for cleaning surfaces that come into contact with food from cloths used for equipment, prep tables, or cutting boards.

Janitors and custodians are responsible for general cleaning in kitchens and food service areas. Cloths used for floors, walls, countertops can never be used for items that come in contact with food.

Each type of wiping cloth should be stored in its own separate labeled or color coded container containing sanitizing solution. There are at least two types of sanitizing solutions that may be used. One is a bleach solution with a 50-100 parts per million (ppm) of sodium hypochlorite and the other is a quaternary ammonia solution at 200-300 ppm ammonia. ***Never mix bleach and ammonia!***

Spills on the Floor

Spills on the floor are a workplace hazard that must be cleaned up immediately. Janitors or custodians are usually the first to be called when a spill occurs.

Coworkers should be advised about the spill verbally or with a "Wet Floor" sign to prevent anyone from accidentally walking through the spill.

It is important to identify the nature of the spill. This will aid in determining how to proceed with clean up. A bucket and mop should be used to apply the correct cleaning solution. Directions for proper use on the cleaning solution container should be followed and any remaining moisture should be cleaned up.

Post warning signs or cones should be used to divert floor traffic until the clean-up site is dry.

Cleaning supplies should be put away properly.

STORING CLEANERS

Cleaners and other non-food items are **ALWAYS** stored separately from foods. Separate shelves, separate cupboards, sometimes even separate rooms.



Figure 58 Storage Cabinet for Non-Food Items

Chemicals used by janitors are NEVER stored in food containers, nor are foods to be stored in chemical containers.

Chemicals should be kept in their own original packaging or in other break-resistant, clearly labeled containers.

When using chemicals, follow the handling instructions contained in Material Safety Data Sheets or MSDSs that are available in your workplace.

Chemicals should be kept away from food handling areas. If chemicals come into contact with food, throw the food away.

You should always store chemicals below and away from food and utensils and the farther, the better.

Chapter 9: Storing and Handling Garbage

This chapter covers storing and handling garbage.

Never store garbage in your facility, move it promptly to a waste container outside. This is especially important if you are collecting garbage in a food handling area. Make sure that doors and external windows keep out pests, such as flies and rats.



Figure 59 The Common House Fly

Careful storage of waste is also important to avoid attracting pests. You should:

- Not allow food or other waste to gather in food areas.
- Keep the storage area clean.
- Arrange for garbage to be removed regularly.

When you move garbage; wash your hands. Don't wait for garbage to pile up, keep it moving and make regular 'garbage runs' out to the refuse container.

- Place garbage in sturdy, leak-proof plastic or metal containers with tight-fitting lids.



Figure 60 Garbage Can with Lid

- The containers should be lined with clear plastic bags, or with wet-strength paper.
- Clean and sanitize garbage containers frequently to prevent odor and keep from attracting insects and other pests.



Figure 61 Assortment of Trash Cans

After any kind of garbage duty you must wash your hands.

WASH YOUR HANDS

Washing your hands is simple, right? But are you sure you are doing it the right way? Here are a few tips for washing your hands.



Figure 62 Washing Your Hands

- Wet hands with warm water.
- Apply a generous amount of soap and lather hands well.
- Rub hands together for 20 seconds or the amount of time it takes to sing Happy Birthday; paying special attention to the areas between fingers and under nails.
- Rinse hands thoroughly with warm water.
- Dry hands with a disposable towel.
- Use the disposable towel to turn off the faucet and open the door, if in a public place.

Chapter 10: The End

We have discussed procedures and safety in the Janitorial and Custodial Industry. No matter what occupation you have, remember that there are responsibilities associated with your job.

We have covered many procedures and safety topics. Ideally safety is freedom from danger. As we stated earlier, every topic for the Janitor and Custodian cannot be covered in this one manual. Some of the topics that are covered include protection from the risk of harm or injury, achieving a clean, sanitary environment, procedures for cleaning, safety devices, and responsibilities.

Technology is moving ahead, changes are being made everywhere you go and everyone is busy. Business today is a fast paced no-nonsense environment where productivity and efficiency mean everything.

Each person has the responsibility for safety, not only for yourself and the safety of your co-workers but also for facility occupants.



Security Policy and Procedures

Hire Correctly

Janitorial associates must be hired with care. Criminal backgrounds should be checked and references called. Regardless of past experience doing cleaning, the hire must be a responsible adult, dependable, completely honest, and comfortable with all cleaning duties, including restroom cleaning. They should be willing to be trained and willing to use building alarm systems and security protocol.

Security with Building Keys

1. The keys are never to be labeled with the name or address of the building or company. Label with color, number or letter codes only. This way, if the keys are ever lost, they cannot be used by an unauthorized finder.
2. Keys should be kept on metal rings and never loose.
3. The key ring should be carried on a belt clip or sturdy pocket of the janitor, never in a purse and never set down off of the janitor's body. Many doors are self-closing and self-locking. Setting the keys down invites the janitor locking himself away from his keys.
4. Any damaged or lost key is to be reported immediately to the manager.
5. When not on the job, the key ring should be kept in a safe, secure place.

Security with Alarm Systems

1. The janitorial associate must be familiar with each alarm system of each building he services. This includes sensor by-pass modes, trip reset, and emergency passwords.
2. The alarm code must be memorized and never written on the key.
3. The janitor must have the phone numbers of the alarm monitor and emergency phone number of the building manager in case of emergency with alarm or security after hours.
4. If given the choice of alarm codes, no 2 buildings serviced should ever have the same alarm code.

Security Policies in the Building

1. Always lock exterior doors when inside working after business hours.
2. Never unlock an exterior door to let anyone in. Authorized staff should have their own key. Secure all doors and windows when leaving, set alarm and double check exit door to be sure it is locked. If door lock is broken or unable to be secured, call the building manager. Never leave the building unsecured.
3. Leave a note for the office manager of anything they should be aware of with the building security or cleaning services.
4. Only authorized personnel should be onsite at job location.

5. The building manager should know who the assigned janitorial associates are in the building each day. Janitorial associates who are newly assigned a building should meet with the building manager to introduce themselves.

Summary

Janitorial staff have security of the client's building as their first duty and responsibility. The trust given the janitorial associate by the building manager should be taken seriously and responsibly. Their duties of maintenance and cleaning are secondary.

SKB

FACILITIES & MAINTENANCE, INC

JANITORIAL SAFETY TRAINING GUIDE



**JANITORIAL
& SAFETY**

MORE ►

About the Janitorial Safety Training Program

Welcome to the Janitorial Safety Training Program! If you are an owner or manager, this program will help you conduct a series of short health and safety training sessions for your employees.

There are eight training sessions, five to fifteen minutes each. The training materials focus on health and safety in the janitorial industry and cover these topics: Safety Orientation, Chemical Hazards, Electrical Hazards, Ergonomic Hazards, Injuries on the Job, Planning for Emergencies, Robberies and Assaults, and Slips and Falls.

WHY USE THIS PROGRAM?

The Janitorial Safety Training Program is designed specifically for small business owners and managers who need to train janitorial employees working alone or in small teams to clean buildings. This Training Program can help:

- Prevent job injuries and illnesses. Regular training helps employees learn how to avoid hazards, keeps lines of communication open between you and your employees, and lets employees know that you are serious about promoting safe work practices.
- Lower workers' compensation costs. Employers in California experience higher costs for workers' compensation medical care than employers in most other states, and California ranks among the highest in workers' compensation premium rates.

The cost of workers' compensation for the janitorial industry is about four times the average cost of workers' compensation in California, according to the Workers' Compensation Insurance Rating Bureau.

- Reduce the number of days away from work and lost productivity. The best way to reduce costs, retain jobs, and maintain a productive workforce is to reduce injuries.
- Meet training requirements under California's occupational health and safety laws.

MATERIALS INCLUDED

The Janitorial Safety Training Program includes two sets of materials: one for owners and managers, and one for employees.

- The Training Guide is designed to be used **by owners and managers**. It contains:
 - step-by-step instructions for conducting the training sessions, and
 - background information and resources for owners and managers.
- The eight loose-leaf handouts in the packet are designed **for employees**. There is one handout for each of the eight training sessions. Each of these handouts has an Activity on one side, and a Tipsheet on the other. You can photocopy these **double-sided** handouts and pass them out to your employees during the training sessions.

The Janitorial Safety Training materials are available in Spanish.

Conducting the Janitorial Safety Training Program

WHAT IS IN THE TRAINING SESSION?

The eight training sessions (five to fifteen minutes each) address some of the most common hazards in the janitorial industry. The topics are listed below:

- Safety Orientation
- Chemical Hazards
- Electrical Hazards
- Ergonomic Hazards
- Injuries on the Job
- Planning for Emergencies
- Robberies and Assaults
- Slips and Falls

NOTE

Other health and safety trainings may be required. See page 17.

Document all trainings by recording the date, topic, name of the trainer, and names of employees. If you have fewer than 10 employees, just keep a log of the instructions provided to each employee.

WHEN TO CONDUCT THE TRAININGS

It is best to conduct the Safety Orientation when employees are first hired. For existing employees, you may wish to hold a Safety Orientation to review safe and healthy work practices.

The remaining seven training sessions can be conducted in any order. If possible, try to hold seven short training sessions spread out over several weeks. This gives employees an opportunity to absorb the information. If this is not possible, you can hold a single training session covering all the topics at once.

HOW TO MAXIMIZE EMPLOYEE PARTICIPATION

It is best to conduct training sessions in groups (two to twenty-five employees) to foster discussion and the exchange of ideas. In the janitorial setting, however, it may be more feasible to conduct one-on-one training sessions with your employees, since employees are often working alone to clean buildings.

Whether your training sessions are held in a group or one-on-one, encourage employees to speak up about their concerns. Involving your employees in identifying potential problems is an effective way to get employee buy-in regarding the importance of health and safety. Also, encourage employees to offer suggestions to improve health and safety. Since they are doing the work day-to-day, they know what works and what doesn't. They may also have ideas that can be shared with other employees.

HOW TO CONDUCT THE SAFETY ORIENTATION

(15 minutes, plus on-the-job training time)

Each employee should receive a Safety Orientation at his or her worksite before beginning work. This is your opportunity to train employees on how to do their job as safely as possible, right from the start.

1. Pass out the Safety Orientation handout to each employee. Turn to the Activity page.
2. Read the introduction aloud.
3. Ask everyone to look at the picture of the janitor. Five common janitorial hazards are shown here. In each bubble, there is a description of the hazard as well as possible injuries and illnesses that might result.
4. Read the Discussion Questions and solicit responses. Address any other hazards or concerns that are raised by employees. Emphasize to employees that it is important to report any symptoms of illness to you right away.
5. Flip to the Tipsheet page. Read the introduction aloud together.

6. Using the Checklist as a guide, provide the information requested and show the employee how to do his or her job *safely*. Carefully demonstrate each task.

For example, if you are demonstrating how to use floor stripper, instruct employees to dilute the stripper with as much water as the manufacturer allows, and wear gloves and goggles. (See the *Chemical Hazards Tipsheet*).

7. Once all the topics have been covered and the employee is comfortable with his or her job tasks, everyone should sign off. A signature here means that the employee received training on these topics.

8. Read the box aloud. Encourage employees to approach you with any questions or concerns about health and safety on the job.



ACTIVITY

Safety Orientation

Each year in California, over 4,000 janitors suffer on-the-job injuries and illnesses and need to take time off work. Many of these injuries and illnesses are preventable.

This safety orientation is designed to spark discussion about workplace health and safety and to encourage both management and employees to make janitorial work safer. The picture below summarizes some of the hazards in the janitorial industry and some of the injuries and illnesses that could result.

ERGONOMIC HAZARDS: Repetitive tasks like mopping and wringing can cause neck, pain, and numbness in the neck, arms, and hands. Lifting heavy items can strain the back.

ROBBERIES AND ASSAULTS: Janitors working alone at night may face special risks.

ELECTRICAL HAZARDS: The presence of water combined with the use of electrical equipment can cause electrical shocks.

SLIPS AND FALLS: Wet floors and uneven carpets can cause slips and falls, which can result in broken bones, sprains, and other injuries.

CHEMICAL HAZARDS: Toxic chemicals found in cleaning and other products can cause eye irritation, skin rashes, coughing, dizziness, and more serious illnesses.

Discussion Questions for Management & Employees

1. Can you think of other hazards in your workplace?
2. What should you do if you experience these (or any other) health symptoms?

Janitorial Safety Training Program WCSHTEP

TIPSHEET

Safety Orientation Checklist

Instructions: To prevent injuries and illnesses on the job, each employee should receive a safety orientation before beginning work. The checklist below summarizes the topics that are usually covered in the safety orientation.

The employee (name) _____ has been:

- Informed about the elements of the company's written safety program.
- Informed about the regular safety meetings.
- Told to immediately report all injuries and shown how to do this.
- Informed about hazards and how to protect themselves (chemicals, slippery floors, ladders, etc.).
- Shown where the first aid supplies are located and whom to contact for first aid.
- Shown where the fire extinguisher is located and how to operate it.
- Told what to do during any emergencies that might occur.
- Informed of and trained on chemical hazards according to the Cal/OSHA Hazard Communication standard training requirements, including what an MSDS is, how to read a label, and what precautions to take.
- Trained on safe methods for performing the specific job the employee was assigned, including any hazards associated with that job, such as heavy or repetitive lifting, mopping floors, cleaning toilets, etc.

Supervisor: _____ Date: _____

Employee: _____ Date: _____

Additional Training

As part of ongoing commitment to workplace health and safety, you authorize all other training and materials on the following topics:

<input type="checkbox"/> Chemical Hazards	<input type="checkbox"/> Training for Strugglers
<input type="checkbox"/> Electrical Hazards	<input type="checkbox"/> Fallwork and Falls
<input type="checkbox"/> Ergonomic Hazards	<input type="checkbox"/> Slips and Falls
<input type="checkbox"/> Injuries on the Job	

WCSHTEP Janitorial Safety Training Program

HOW TO CONDUCT THE REMAINING SEVEN TRAININGS

(5 to 10 minutes each)

The remaining seven training sessions can be conducted in any order. The basic instructions for each training are given below. The *Chemical Hazards* handout is shown as an example.

CHEMICAL HAZARDS

Janitors can become sick if exposed to toxic chemicals contained in products like floor strippers or cleaning solutions.

Look at the pictures below. Which of these activities are safe? Which are unsafe? Why?

A. Using an unlabeled container. B. Opening windows while using chemicals. C. Diluting floor stripper with water.

ANSWERS: A. Unsafe. All containers should be clearly labeled. B. Safe. Opening windows and doors helps improve ventilation. C. Safe. Diluting highly toxic chemicals with water makes them less toxic.

Discussion Questions for Management & Employees

1. What chemicals do you work with?
2. Which chemicals are you most concerned about? Why?
3. What can management and employees do to protect everyone from chemical exposure? (Tip this page over for tips on reducing chemical exposure.)

TIPSHEET

Chemical Hazards

Management Can Make the Workplace Safer

- Provide less toxic cleaning products when possible. See a list of janitorial cleaning products certified by Green Seal at www.greenseal.org.
- Make sure all containers are properly labeled. When chemicals are transferred into a different container, the new container must be labeled, according to law.
- Train employees about hazardous chemicals and how to safely use them. Employers are also required by law to train workers on how to read labels, how to read the Material Safety Data Sheets (MSDS), and where the MSDSs are kept.
- Check with the building owner about keeping the heating, ventilating, and air conditioning system on during cleaning hours to keep air moving.

Employees Can Follow Safe Work Practices

- Use mild cleaners for regular cleaning. Save stronger chemicals for stubborn stains. Specialized chemicals (such as metal or window cleaners) are often the most toxic.
- Dilute chemicals (such as disinfectant) with as much water as possible while still getting the job done. Follow the manufacturer's directions.
- Open windows and doors, if possible, when using chemicals.
- Do not mix chemicals unless instructed to by the manufacturer.
- Close all containers, especially spray bottles, when not in use.
- Pour chemicals (such as toilet bowl cleaner) from a low height to avoid splashing.

Employees Can Use Protective Clothing & Equipment

- Use gloves and goggles when appropriate.

Slippery Floors Can Be Very Hazardous

- Use floor wax less often by using floor polish. Use floor mats at all entry ways to catch dirt.
- Properly dilute the floor stripper to make it less toxic. Only a commercial floor stripper is meant to be mixed with water. Follow the manufacturer's directions.
- Wear gloves and goggles.

1. Remind employees that you are conducting a series of short health and safety trainings. Pass out the handout for today's training topic.
2. Turn to the Activity page. Read aloud the instructions for the activity. Explain that this is not a pop quiz, but an activity to get ideas flowing. Give employees a few minutes to complete the activity.
3. Ask employees to share their answers. Discuss and check the answers against those given in the box. (Some activities call for brainstorming.)
4. Read the Discussion Questions. Use these to spark discussion between you and employees and to help you take **joint actions** to prevent injuries and illnesses. Be open to employees' suggestions for improving health and safety.
5. Flip to the Tipsheet page. Read the tips aloud. These are simple tips that are often used in the janitorial industry. You and your employees may have even better solutions that fit your workplace. Keep in mind that it is better to remove a hazard altogether than to use protective gear (see *Taking the Safest Approach* on page 15).
6. Ideally, at the end of the training, you and your employees will each have action items to follow up on. For example, if you are training on Chemical Hazards, you could agree to buy a mild glass cleaner, and employees could agree to open doors and windows. Note: you may need to purchase supplies (such as labels) so that employees can follow safe work practices.
7. Follow up with employees after the training session to share progress on action items. Continue with the next training, until all the topics have been covered.

Safety Pays!

Taking risks is a part of running a business, particularly for small business owners. You take risks in product development, marketing, and advertising to stay competitive. But some risks are just not worth the gamble. One of these is risking the safety and health of those who work for you. By implementing a strong safety and health program, you can accomplish three important things at once:

1. Prevent Human Suffering

One serious injury in your workplace can have a devastating impact on your employees, their families, and you. By preventing that serious accident, you can help:

- Save lives.
- Reduce workers' pain and disability.
- Reduce the impact of workers' injuries on their families and communities.
- Protect co-workers from the stress of filling in for people who are off the job.

"I couldn't care less about the fines. It was losing one of our own. We were all devastated. I will never get over it."

—Employer of a worker killed on the job

"It wasn't just the pain after the accident, or that I couldn't support my family on the limited benefits. It affected every part of my life—my ability to participate in sports, church activities, volunteering in my kids' school—I lost it all."

—Injured worker

2. Save Money

For every dollar spent on the direct costs of a worker's injury or illness (medical expenses and lost wages), it's estimated that you, the employer, will spend at least as much again to cover the indirect and hidden costs. In most cases, you may spend 4-6 times more. Consider what one injury with lost workdays would cost you in terms of:

- Productive time lost by the injured employee.
- Productive time lost by employees and supervisors attending the accident victim.
- Clean up and start up of operations interrupted by the accident.
- Time and cost for repair or replacement of any damaged equipment or materials.
- Overtime costs when other workers must fill in.
- Fines for violating regulations.

- Cost of time spent on the investigation.
- Cost of completing paperwork generated by the incident.
- Time to hire or to retrain others to replace the injured worker until his/her return.
- Loss of skills of valuable employees.
- Low worker morale and perhaps less efficiency and increased absenteeism.
- Increased workers' compensation insurance rates.

"Every \$1 invested in workplace safety results in \$3 or more in savings. Safety is an investment, not a cost."
—Insurance industry study

3. Promote a Positive Image

An effective health and safety program can also make your business stand out. It can:

- Increase worker morale (show that workers' well-being comes first) and decrease turnover.
- Attract top employees.
- Help the company stand out in the community as a caring employer.
- Improve client and investor relations by demonstrating an excellent safety record.
- Avoid bad publicity from fines, accidents, and incidents.

"A big accident or fine may be a rare event, but it can cost a great deal in terms of public image. We had a disastrous experience with OSHA and paid dearly for it. We never want to be embarrassed like that again!"
—Safety manager

"A company's reputation is of significant value in generating a favorable return on investment. A company or organization will benefit from a favorable reputation by becoming the first choice of customers, investors, suppliers, and employees."
—Business researcher

References

American Society of Safety Engineers. White Paper: The return on investment for safety, health, and environmental management programs. Des Plaines, IL, ASSE, 2002.

McDonald C. Workplace safety pays, survey shows. *National Underwriter*, Sept. 17, 2001: 105, 38: ABI/INFORM Global pg. 26.

Schulte PA. Characterizing the burden of occupational injury and disease. *Journal of Occupational and Environmental Medicine*, 47(6):607-622, June 2005.

Portions of this factsheet were adapted from the *Guide to Developing Your Workplace Injury and Illness Prevention Program*, Cal/OSHA Consultation, rev. 2005.

Taking the Safest Approach

Many hazards exist in the janitorial industry, but there are steps that can be taken to improve safety dramatically. As the safety pyramid below shows, there are three main ways to protect workers.

The best way to prevent injuries is to remove the hazard altogether (#1 below), or keep it isolated, away from workers, so it cannot hurt anyone. This way the workplace itself is safer!

Removing the hazard can sometimes be the most difficult solution or take the longest time to implement. You may need other solutions to protect you in the meantime, like changing the way the work is done (#2) or using protective clothing and equipment (#3).



EXAMPLE

Chemicals like toilet bowl cleaners can splash into janitors' eyes. What controls can be put in place to keep workers from getting hurt?

1. Is there a way to remove the hazard?

Use a less toxic product that causes fewer health problems. This is the safest approach.

2. What improvement in work practices would help?

Train workers on the importance of pouring chemicals from a low height to avoid splashing.

3. What protective clothing or equipment would help?

Use goggles to prevent any splashes from getting into the eyes.

What Health and Safety Training Is Required?

Note: The laws and regulations cited in this booklet are available online. The laws are in the California Labor Code, and the regulations are in the California Code of Regulations (CCR). For the laws, go to www.leginfo.ca.gov (link to California Law). For the regulations, go to www.csl.ca.gov (link to Cal. Code Regs).

This Janitorial Safety Training Program can help you provide basic health and safety training to your employees, but additional training may be required. The following is an overview of training requirements under the Injury and Illness Prevention Program (IIPP) standard, Hazard Communication standard, Emergency Action Plan standard, and other job-specific standards.

OVERVIEW OF TRAINING REQUIREMENTS

All California employers are required to provide health and safety training to all of their employees. The broadest training requirements fall under **Cal/OSHA's Injury and Illness Prevention Program (IIPP) standard** (required under California Labor Code Section §6401.7). Training must be provided to all workers on the hazards in your workplace:

- when they start working for you;
- when they're given a new job assignment; and
- whenever new procedures or equipment are introduced.

Two other standards that affect most workers are Cal/OSHA's **Hazard Communication standard**, which requires training on any chemicals to which employees may be exposed, including cleaning products, and the **Emergency Action Plan standard**, which requires training on how to respond to emergencies in the workplace. These three standards are summarized in this section. However, this booklet is not designed to ensure full compliance with all Cal/OSHA standards, so be sure to check the relevant standards yourself, as needed.

Janitors working in health care or some other settings need **bloodborne pathogen** training if they are at risk of coming into contact with infectious diseases.

www.dir.ca.gov/dosh/dosh_publications/dontrisk.html

Cal/OSHA requires training in other specific standards, such as asbestos, fall protection, forklifts, and hearing protection. To find out which training requirements affect your employees, go to:

www.dir.ca.gov/dosh/dosh_publications/TrainingReq.htm

Injury and Illness Prevention Program Standard [Title 8 OCR §1509 and §3203]

The Injury and Illness Prevention Program (IIPP) standard requires every California employer to establish, implement, and maintain an effective IIPP to promote health and safety in the workplace.

An IIPP must be a written plan that includes all of the following elements:



- **Management commitment and assignment of responsibilities.** Someone with the authority and responsibility for the program must be identified and given management's full support to implement the program.
- **A system for ensuring that employees follow safe and healthy work practices.** This should include a plan for providing re-training to employees when necessary.
- **Safety communication system.** Employers must communicate with employees about safety in a language they can understand and in a manner that does not depend on employees' reading and writing skills. Communication systems may include safety meetings, written materials, health and safety committees, or other methods that encourage employees to share their safety concerns or suggestions without fear of being fired or punished.
- **Hazard identification and control.** There must be specific procedures for identifying, evaluating, and correcting hazards, including scheduled periodic inspections of the workplace. Hazards must be corrected as soon as they are found, or as quickly as possible, with priority given to the most serious hazards.
- **Incident investigation.** There must be a process for investigating work-related injuries and illnesses. Written documentation of incidents should be kept, indicating why they occurred and what actions will be taken to prevent them in the future.
- **Training.** Training must be provided to all employees when the IIPP is established, to all new employees when they start, and to anyone with a new job assignment. Whenever new substances, processes, procedures, or equipment are introduced in the workplace, employees must receive training about them.

The written IIPP must be made available to all workers. Records must be kept to document that there is an effective program in place. These records must include scheduled inspections, actions taken to correct problems, and types, dates, and providers of training. Please note that while all employers need to have written IIPPs, there are some exceptions to the documentation requirements if you have fewer than 10 employees.

See the *Resources* section for more information on IIPPs.

Hazard Communication Standard [Title 8 OCR §5194]

This Cal/OSHA regulation requires employers to provide information to employees about the chemicals and other hazardous substances to which they may be exposed at work by providing Material Safety Data Sheets (MSDSs), chemical labels, and training.

MSDS. Manufacturers of products containing hazardous ingredients must prepare MSDSs for those products and distribute them to purchasers (such as employers). The MSDS identifies the manufacturer, contents, toxicity, and safety hazards of the chemical product. It describes routes of exposure (skin, inhalation, or ingestion) and explains how to prevent health problems. Employers must have an up-to-date MSDS for each hazardous product they use and must make MSDSs available to employees. Employers can get MSDSs by calling their chemical supplier, or, in some cases, from the internet.

Chemical labels. Employers must make sure that all products with hazardous ingredients are properly labeled. Original labels must include the identity of the hazardous substance (matching the corresponding MSDS), appropriate hazard warnings, and the name and address of the manufacturer or importer. This labeling requirement applies to all containers, even those into which a smaller amount of the chemical has been poured.

Training. Employers are required to train workers about the hazardous substances used at work, their health effects, how to work safely with them, how to read an MSDS, and where the MSDSs are kept. The training must also cover how accidental chemical releases are detected and what emergency procedures should be followed in case of a spill or leak.

Employers are required to describe in writing the elements of the workplace's hazard communication program and how the workplace will comply with this Cal/OSHA standard. This written program must be available at the worksite and communicated to all affected workers.

See the *Resources* section for more information on hazard communication programs.

Emergency Action Plan Standard [Title 8 OCR §3220]

Although Cal/OSHA does not explicitly require every business to have an Emergency Action Plan, most businesses need to have one to meet local city or county requirements, or because a business' work falls under other Cal/OSHA standards that do require one. It is a good idea for *every* business to have an Emergency Action Plan.

This Cal/OSHA regulation sets minimum requirements for what Emergency Action Plans should include when they are required. Employers with more than 10 employees must have such a plan in writing. Employers with 10 or fewer employees do not need to have a written plan, but they do need to meet all the other requirements of the Emergency Action Plan standard and must communicate these elements to employees.

The Emergency Action Plan must include the following elements:

- Emergency escape procedures and routes.
- Procedures explaining how critical operations will be maintained during and after an emergency (if necessary).
- Procedures to account for all employees after an emergency evacuation has been completed.
- Rescue and medical duties for staff. Employees should know who is trained in first aid or CPR and where to get medical attention if needed.
- How employees should report fires and other emergencies.
- Who is responsible for coordinating emergency response.

Alarm system. The employer must have an alarm system that can be seen, heard, and understood by all employees.

Evacuation. The plan should designate inside shelters, exits, evacuation routes and procedures, and outside meeting places. Exits and evacuation routes should be checked periodically to be sure they are not blocked.

Training. The employer must designate and train key staff to assist in evacuation procedures. All employees need to understand what to do during different kinds of emergencies. Employees should be trained so they understand: their responsibilities during an emergency; the alarm system and “all clear” announcements; where to gather during an emergency; how to report an emergency; what to do if there is a chemical spill; and who has training in first aid and training in the use of fire extinguishers.

See the *Resources* section for more information on emergency action plans.

15.9.2.1

SKB's training, security and safety programs meet the requirements of the scope, because we make sure that we have read your policies thoroughly and have included all aspects of training that the Memphis-Shelby County Airport Authority has asked for. We currently manage the 2nd and 3rd shift operations; therefore we believe we know first-hand what the Airport is looking for and our goal is to meet and or exceed your expectations.

15.9.2.2

Training is key to our business. SKB consistently analyzes and evaluates our training program to make sure our employees are getting what is needed to do the job correctly. As stated previously we use The Clean Check Training System from Spartan Chemical, which we have found to be very effective. We realize not all employees are visual learners, so we also provide On the Job (OJT) by training our employees in our on-site hands-on training center. Our employees start their training during orientation on the first day. We also have continuous training weekly, as well as quarterly. Our managers are on-site daily to assist with any questions regarding training.

15.9.2.3

SKB understands that the Memphis-Shelby County Airport Authority has strict rules and regulations regarding security. Due to rules and policies set by Homeland Security it is vitally important for all employees who work this site to be familiar with all security policies. Currently, SKB manages the 2nd and 3rd shift at the Airport. We have added specific instructions to our orientation for Airport employees to ensure they are fully informed about critical security policies and procedures. Also, we have tenured managers who have unique experience with working at the Memphis-Shelby County Airport. They are available to perform On-The-Job training with employees and make sure we do not have any issues related to movement of materials and equipment throughout the facility.

15.9.2.4

SKB wants all employees to return home safe nightly, along with making sure that passengers have a clean safe environment. We evaluate our safety program quarterly relevant to any incidents / accidents. We have a safety booklet that we go over with all employees during orientation, along with twenty-six weeks of safety talks that we share with employees weekly, providing both weekly and quarterly training. We have recently developed several Safety Officer Positions, encouraging an awareness of accountability. The Safety Officer is responsible for checking nightly for unsafe conditions. Any issues are then corrected according to procedures and reported to the manager on duty.

All relevant OSHA requirements are complied with and evaluated on each visitation. Included in, but not limited to this inspection will be:

- Proper equipment maintenance-no frayed plugs/wires 3-prong plug placement intact (all equipment properly grounded).
- Labeling all chemicals: both daily usage items, as well as stored goods.
- Safety Data Sheets available to all management and line employees.
- Full enforcement at all times of Worker's Compensation insurance policies and manuals.
- Ongoing training and compliance with routine procedures for safety at all levels including federal mandates concerning "Right to Know" policy.
- Chemicals used will be biodegradable with a PH of 7, with no more alkalinity than 11 acids. Caustic materials will be of a NO USE policy.
- SKB will work with supervisors communicating restrictions of certain chemicals in confined areas.

In an effort to supply the most up-to-date quality programs for our customers, SKB has adopted a program that makes our workers aware of the OSHA requirements regarding Blood Bourne Pathogens and Safety.

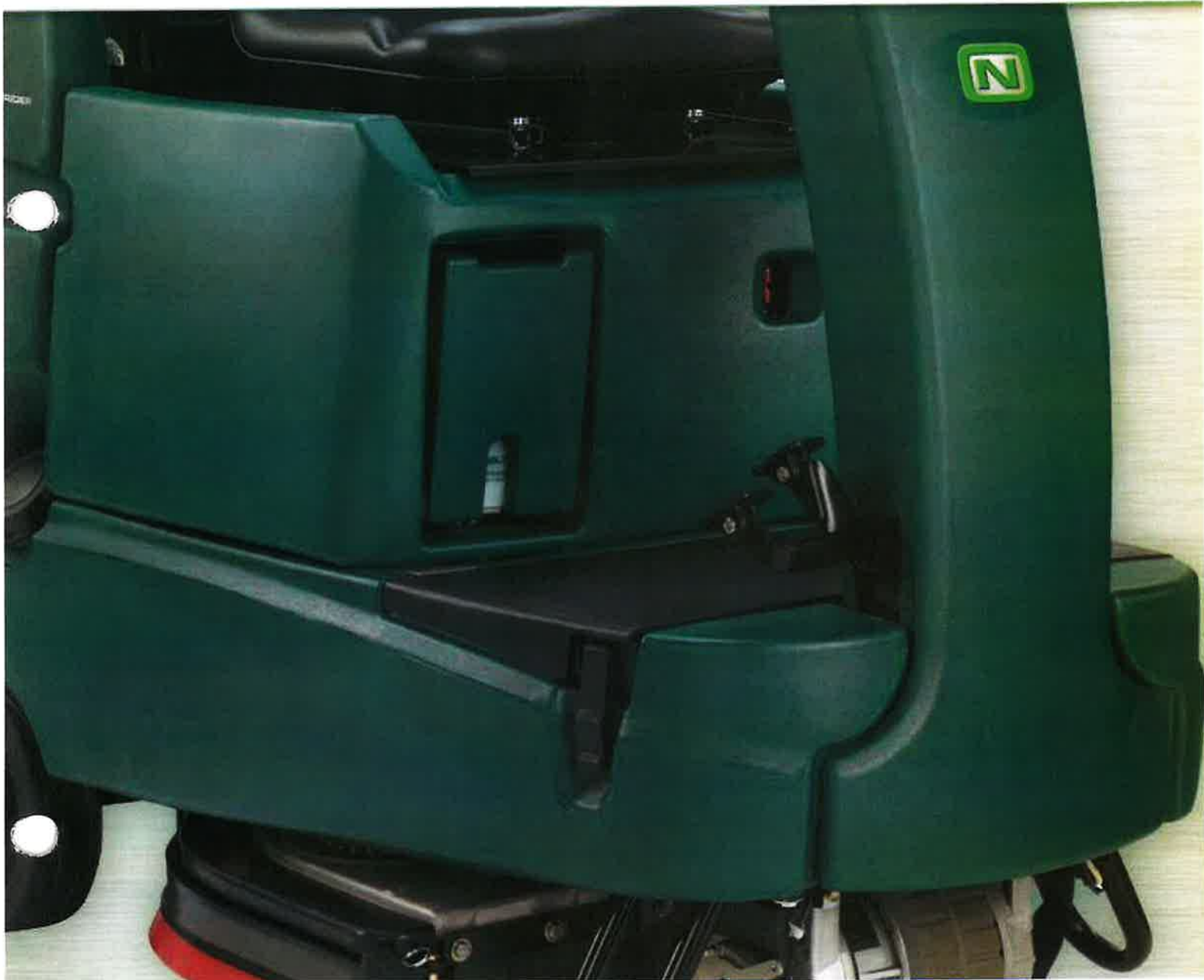
Supervisors have been trained in the following categories:

1. Hepatitis (HBV)
2. HIV (AIDS)
3. On-the -job accidents and injuries.
4. OSHA Blood Bourne Pathogens Standards 1910.1030, personal barriers.
5. Vaccinations, procedures for clean-up after accidents, and the symptoms.
6. Epidemiology and transmission of blood-bourne pathogens.

Our first priority is the safety of your company and SKB employees.

NOBLES[®]
ENGINEERED BY TENNANT COMPANY

SPEED SCRUB[®] RIDER
Easy-to-use micro-rider scrubber for compact areas



Simple, easy-to-use rider scrubber for compact areas.

The Speed Scrub® Rider

It's efficient

- Clean longer with the Speed Scrub®'s massive 29 gal / 110 L solution and recovery tanks
- Get up to 4.5 hours of runtime with just one charge

It's safe

- Reduce handling and using scrubber detergent with ec-H₂O NanoClean™ technology
- Use up to 70% less water and 90% less detergent with FaST® technology
- Clean almost anywhere, anytime with quiet 67 dBA sound level

It's simple

- Start cleaning immediately with simple-to-learn, one-button controls!
- Easy-to-understand diagnostic indicators keep you scrubbing with less downtime



Five no-nonsense features

1. Two cleaning path widths

Choose the corrosion and damage-resistant cast aluminum scrub head that best fits your cleaning needs; available in 26 in / 650 mm and 32 in / 800 mm disk and 28 in / 700 mm and 32 in / 800 mm cylindrical path widths.



2. Low sound level

With a 67 dBA, the Speed Scrub® Rider is perfect for noise-sensitive environments.



3. One-button controls

Start cleaning immediately with easy-to-learn, one-button controls!

Built to be **tough**. Made to be **easy**.

EXCLUSIVE TECHNOLOGIES (optional cleaning innovations)



ec-H2O NanoClean™ technology electrically converted water is created by an on-board e-cell that generates millions of very tiny microscopic bubbles known as nanobubbles that promote the cleaning efficacy of the solution.

This next generation solution offers the same great benefits of the first generation and now cleans better and cleans more soils in more applications. The name NanoClean, refers to the generation of nano-scale bubbles that are an important part of the cleaning mechanism.



FaST Foam Scrubbing Technology uses up to 70% less water and 90% less chemicals to improve floor traction as certified by NFSI, helping reduce the risk of slip and fall accidents.

Both technologies increase scrub time up to three times using a single tank of water.

4. Long battery charge

Clean up to 3 hours on just one charge! Up to 4.5 hours with optional 335 AH batteries!



5. Iron-clad warranty

3 years / 1,500 hours on parts and labor (excluding batteries), 10 years on tanks.





ec-H2O NanoClean™ and FaST® technologies are NFSI (National Floor Safety Institute) Certified. NFSI certified products must pass a 2-phase wet slip resistance process and have been shown to reduce the potential for slip-and-fall accidents.



ec-H2O NanoClean and FaST technologies are registered by NSF International. NSF

International is an independent, not-for-profit organization that ensures formulation and labels on these products meet appropriate food safety regulations.



ec-H2O NanoClean and FaST technologies may contribute to LEED or LEED-EBOM (Existing Building: Operations & Maintenance) points, provided other appropriate criteria are met.

For more information on obtaining LEED points, please contact your sales rep or refer to the USGBC website at: www.usgbc.org



FaST is a Green Seal (GS-37) Certified Detergent. Green Seal evaluates and certifies

cleaning products based on criteria such as the toxicity of the product, skin and eye irritation, skin sensitization, combustibility, toxicity to aquatic life, and packaging.



Conserve Resources



Reduce Detergents



Increase Safety



Improve Air Quality



Reduce Noise

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Specifications	Disk	Cylindrical
Cleaning path	26 in / 650 mm 32 in / 800 mm	28 in / 700 mm 32 in / 800 mm
Solution tank capacity	29 gal / 110 L	29 gal / 110 L
Productivity (per hour)		
Theoretical max	(26") 45,760 ft ² / 4,250 m ² (32") 56,320 ft ² / 5,230 m ²	(28") 49,280 ft ² / 4,578 m ² (32") 56,320 ft ² / 5,230 m ²
Estimated actual* (conventional)	(26") 23,760 ft ² / 2,210 m ² (32") 29,700 ft ² / 2,760 m ²	(28") 25,740 ft ² / 2,391 m ² (32") 29,700 ft ² / 2,760 m ²
Estimated actual* (ec-H2O NanoClean/FaST)	(26") 27,720 ft ² / 2,575 m ² (32") 34,650 ft ² / 3,219 m ²	(28") 30,030 ft ² / 2,790 m ² (32") 34,650 ft ² / 3,219 m ²
Solution flow rates		
Conventional (fully variable)	0-0.5 gpm / 0-1.89 lpm	.50, .75 & 1 gpm / 1.89, 2.84 & 3.79 lpm
FaST	0.30 gpm / 1.14 lpm	0.30 gpm / 1.14 lpm
ec-H2O NanoClean	0.30 gpm / 1.14 lpm	0.40 gpm / 1.51 lpm
Scrub motors	(2) 0.6 hp / 0.45 kW	(2) 0.75 hp / 0.5 kW
Scrub motor speed	225 rpm	1,500 rpm
Brush/pad down pressure	Up to 160 lb / 75 kg	Up to 120 lb / 54 kg
Brush/pad driver quantity & size	(26") (2) 13 in / 330 mm (32") (2) 16 in / 410 mm	(28") (2) 28 x 6 in / 700 mm x 150 mm (32") (2) 32 x 6 in / 800 mm x 150 mm
Recovery tank capacity (includes demisting chamber)	29 gal / 110 L	29 gal / 110 L
Vacuum fan		
Motor	0.6 hp / 0.45 kW	0.6 hp / 0.45 kW
Stages	3-stage	3-stage
Water lift	70 in / 1,780 mm	70 in / 1,780 mm
Propel speed (variable to)		
Transport	4 mph / 6.4 km/h	4 mph / 6.4 km/h
Scrubbing	3.6 mph / 5.8 km/h	3.6 mph / 5.8 km/h
Batteries (24 V system, charger included)		
Standard/run time**	(4) 6V, 235 AH / Up to 3 hrs	(4) 6V, 235 AH / Up to 3 hrs
Optional heavy-duty/run time**	(4) 6V, 335 AH / Up to 4.5 hrs	(4) 6V, 335 AH / Up to 4.5 hrs
Gradeability (ramp climb)		
Scrubbing/transporting (full)	4° / 6°	4° / 6°
Trailer ramps (empty)	11°	11°
Product length	60 in / 1,520 mm	60 in / 1,520 mm
Product width (scrub head)	(26") 31.5 in / 800 mm (32") 36 in / 910 mm	(28") 32.5 in / 830 mm (32") 36.5 in / 930 mm
Product width (squeegee)	(26") 33.25 in / 850 mm (32") 39.25 in / 1,000 mm	(28") 33.25 in / 850 mm (32") 39.25 in / 1,000 mm
Product height	50 in / 1,270 mm	50 in / 1,270 mm
Product weight		
Less batteries	585 lb / 265 kg	(28") 632 lb / 287 kg (32") 653 lb / 296 kg
With batteries (4) 6V 235 AH	850 lb / 386 kg	(28") 897 lb / 407 kg (32") 918 lb / 416 kg
With batteries (4) 6V 335 AH	975 lb / 443 kg	NA
Minimum aisle turn	(26") 68.5 in / 1,730 mm (32") 72.5 in / 1,840 mm	(28") 68.5 in / 1,730 mm (32") 72.5 in / 1,840 mm
Sound level*** (operator's ear)	67 dBA	69 dBA

* Estimated coverage rates use the practical speed and empty/fill time standards from the 2004 ISSA Cleaning Times handbook.
 ** Run times are based on Continuous Scrubbing Run Times.
 *** Sound levels per ISO 11201 as recommended by the American Association of Cleaning Equipment Manufacturers & OSHA.
 Specifications subject to change without notice.



CREATING A CLEANER, SAFER, HEALTHIER WORLD.

EQUIPMENT



R14

DUAL-TECHNOLOGY CARPET CLEANER

- Create beautiful carpets in minutes with ReadySpace[®] technology
- Remove the most deeply embedded dirt with superior restorative extraction technology
- Help inhibit mold and bacteria growth by leaving up to 90% less water in the carpet immediately after cleaning

OUTSTANDING DUAL-TECHNOLOGY CARPET CLEANING FROM A SINGLE MACHINE



The R14 combines patented ReadySpace® technology with deep extraction power to deliver unbeatable carpet cleaning results.

CREATE FRESHER, HEALTHIER ENVIRONMENTS

Using 80% less water to clean, and leaving up to 90% less water in the carpet, the R14 with ReadySpace helps reduce mold and bacteria growth and leaves spaces cleaner and healthier.

INCREASE ENVIRONMENTAL SAFETY

Since carpets dry faster with ReadySpace technology, the risk of slip-and-fall accidents when transitioning from just-cleaned carpet to hard floor is noticeably reduced.

EFFECTIVELY CLEAN THE LARGEST CARPETED SPACES

With a wide 28 in / 710 mm cleaning path, a generous 32 gal / 121 L Hygenic® solution tank, and three hour battery run time, the R14 with ReadySpace delivers continuous cleaning time.

POWERFUL RESTORATIVE EXTRACTION TECHNOLOGY

Tennant pioneered extraction technology and with the R14, we deliver the most effective deep extraction available. Dual counter-rotating extraction brushes combine with patented vacuum shoe design to leave carpets fresh, clean, and looking like new.

INSIDE THE

R14

Quickly and easily – with no tools – change from ReadySpace technology to deep extraction technology and back.

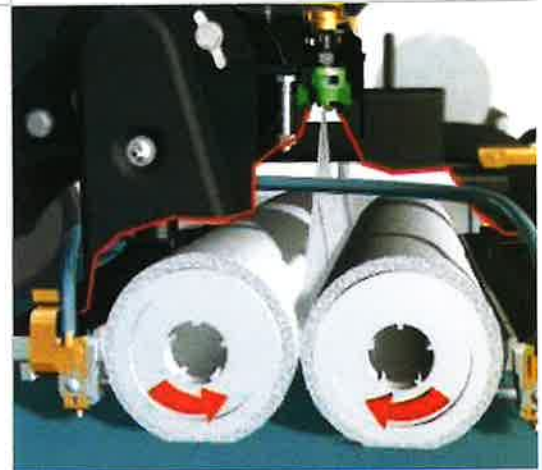
Effectively train the most inexperienced operators with the simple-to-use, soft touch control panel.



Maneuver into and out of congested areas with compact design.

Lift and remove more dirt from both the front and the back of carpet fibers with double agitation, counter-rotating brushes and rollers.

Achieve unmatched results from a patented vacuum shoe design that features maximum water suction across the entire cleaning path.



CARPETS CLEAN, DRY AND READY IN MINUTES

Patented ReadySpace® technology creates clean carpet spaces that are dry and ready to use in less than 30 minutes.

Consider the benefits:

- ▶ Reopen rooms and carpeted areas sooner
- ▶ Keep space accessible to guests and customers
- ▶ Improve carpet appearance in high traffic areas with more frequent cleanings
- ▶ Reduce the risk of slip-and-fall when transitioning from damp carpet to hard floors

- Reduce rework, labor and safety costs by using only TennantTrue parts and service.
- Ensure optimal cleaning performance by selecting a TennantTrue Service program provided by a network of over 400 factory-trained Tennant service representatives.
- Improve uptime by leveraging TennantTrue parts and service.
- Simplify budgeting by bundling TennantTrue service plans, including parts, into the purchase or financing of your machine.



Carpet and Rug Institute (CRI)
Seal of Approval – Certified Bronze.

Choose GE Capital or U.S. Bancorp,
our leasing providers, for simple, quick
financing with flexible upgrade options.

R14 DUAL-TECHNOLOGY CARPET CLEANER

CLEANING SYSTEM

Cleaning path	28 in / 710 mm
Productivity (per hour)	
Theoretical max – ReadySpace*	13,000 ft ² / 1,210 m ²
Estimated coverage – ReadySpace	10,000 ft ² / 930 m ²
Theoretical max – Extraction	7,500 ft ² / 700 m ²
Estimated coverage – Extraction	5,000 ft ² / 470 m ²

BRUSH DRIVE SYSTEM

Brush motor horsepower (2)	0.54 hp / 0.40 kW
Roller/brush RPM	270 rpm / 270 rpm
Roller/brush size (dual cylindrical)	27.5 in / 700 mm
Down pressure	
ReadySpace	104 lb / 47 kg standard, 152 lb / 69 kg heavy
Extraction	32 lb / 15 kg standard, 84 lb 38 kg heavy

SOLUTION SYSTEM

Solution tank capacity– cleanable	32 gal / 121 L
Solution pump rated pressure (max)	250 psi / 17.2 bar
Solution pump pressure	
ReadySpace	30 psi / 2.07 bar at spray tips
Extraction	52 psi / 3.59 bar at spray tips
Solution flow rate	
ReadySpace	0.33 gpm / 1.25 lpm
Extraction	1.24 gpm / 4.7 lpm

RECOVERY SYSTEM

Recovery tank capacity– cleanable	28 gal / 106 L
Vacuum fan (2)	3-stage, 0.6 hp / 0.45 kW
Vacuum motor airflow (max)	66.5 cfm / 1.88 m ³ /min
Vacuum system airflow (actual)	
ReadySpace	48 cfm / 1.36 m ³ /min
Extraction	32 cfm / 0.91 m ³ /min
Vacuum motor sealed waterlift	70.5 in / 1,790 mm
Vacuum system sealed waterlift	56 in / 1,420 mm
Vacuum shoe (2)	16.5 in / 420 mm (removable without tools)

POWER SYSTEM

Standard capacity batteries (24 V)	335 AH
Battery run time (max)	3.0 hr

PROPELLING SYSTEM

Cleaning speed – ReadySpace	
Standard	100 fpm / 30 mpm
Maximum	150 fpm / 46 mpm
Cleaning speed – Extraction	
Standard	50 fpm / 15 mpm
Maximum	75 fpm / 23 mpm
Transport speed forward	290 fpm / 88 mpm
Transport speed reverse	175 fpm / 53 mpm
Gradeability	
Transport at gross weight	6° / 10.5%
Transport (empty for trailering)	11° / 19.25%
Working	3° / 5%

MACHINE SPECIFICATIONS

Length	61.5 in / 1,560 mm
Width	31.5 in / 800 mm
Height	52 in / 1,320 mm
Weight	835 lb / 379 kg
Weight (with batteries)	1,225 lb / 556 kg
Minimum aisle turn	64 in / 1,630 mm
Sound level (operator's ear)	73 dBA

WARRANTY

See your local representative for warranty information

Specifications subject to change without notice.

SEEING IS BELIEVING

For a demonstration or additional information,
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NOBLES[®]
ENGINEERED BY TENNANT COMPANY

SPEED SCRUB[®] 500

Walk-Behind Floor Scrubber



Reliable, effective cleaning results. Anytime. Every time.

The Speed Scrub® 500

Cost Effective & Versatile.

- Clean virtually any hard surface condition with a wide range of cleaning options, including orbital.
- Save time and money on battery maintenance and help increase battery performance with optional Smart-Fill™ on-board automatic battery watering system paired with IRIS® Asset Manager.

It's easy.

- Spend less time training and maintaining, and more time cleaning, with simple controls and yellow touch points for easy maintenance.

Reliable Performance.

- Evenly and effectively remove floor finish with high orbital down-pressure and durable isolators.
- Extend machine life and reduce costs with durable components.



Five features for smart, dependable cleaning

1. Smart-Fill™

Maximize battery productivity with exclusive patent-pending Smart-Fill™ technology, an optional on-board, virtually no-hassle battery watering system.



2. Three scrub head options

Clean virtually any hard surface condition with 3 scrub head options, including a 28 in / 700 mm orbital cleaning head.



3. Redesigned squeegee

Reduce risk of slips and falls with redesigned squeegee and integrated P-trap that improves water pick-up and prevents water drips after cleaning.

Built to be **tough**. Made to be **easy**.

EXCLUSIVE TECHNOLOGIES

(optional cleaning innovations)

SMART-FILL™ AUTOMATIC BATTERY WATERING

Smart-Fill is the first on-board battery watering system that automatically fills batteries correctly, at the best time in the charging cycle and with minimal human intervention, making battery maintenance easy and virtually worry-free.

Smart-Fill technology prevents operators from using scrubbing functions on dry batteries and an on-board control panel alert notifies operators when the distilled water tank is low.



ec-H2O NanoClean® technology electrically converted water is created by an on-board e-cell that generates millions of very tiny microscopic bubbles known as nanobubbles that promote the cleaning efficacy of the solution.

This next generation solution offers the same great benefits of the first generation and now cleans better and cleans more soils in more applications. The name NanoClean, refers to the generation of nano-scale bubbles that are an important part of the cleaning mechanism.†

ec-H2O NanoClean technology increases scrub time up to three times using a single tank of water.

†ec-H2O NanoClean technology is not suitable for all soils, including heavy concentrations of fats and oils. Depending on the type of soil, conventional chemical cleaners may be required.

4. Improved operator ergonomics.

Updated control panel puts propel direction switch, speed settings, down pressure settings and water flow settings all within easy reach.



5. Increase productivity, reduce cost to clean and make informed decisions with intelligent insights from the optional IRIS® Asset Manager.

iris
IRIS ASSET MANAGER



SPEED SCRUB® 500 WALK-BEHIND FLOOR SCRUBBER

	DUAL DISK			CYLINDRICAL	ORBITAL
	26 / 650 MM	28 IN / 700 MM	32 IN / 800 MM	28 IN / 700 MM	28 IN / 710 MM
Productivity (per hour) Theoretical Max	28,600 ft ² /hr / 2,657 m ² /hr	30,800 ft ² /hr / 2,861 m ² /h	35,200 ft ² /hr / 3,270 m ² /hr	30,800 ft ² /hr / 2,861 m ² /h	28,000 ft ² /hr / 2,601 m ² /hr
Estimated Coverage* - Conventional	20,571 ft ² /hr / 1,911 m ² /hr	22,286 ft ² /hr / 2,070 m ² /h	25,714 ft ² /hr / 2,389 m ² /hr	22,286 ft ² /hr / 2,070 m ² /h	20,260 ft ² /hr / 1,882 m ² /hr
Estimated Coverage* - ec-H2O NanoClean®	23,124 ft ² /hr / 2,148 m ² /hr	23,680 ft ² /hr / 2,200 m ² /hr	27,323 ft ² /hr / 2,538 m ² /hr	23,680 ft ² /hr / 2,200 m ² /hr	21,527 ft ² /hr / 2,000 m ² /hr

BRUSH DRIVE SYSTEM

Scrub motor	2x 24 VDC, 0.75 hp / 0.55 kW	2x 24 VDC, 0.75 hp / 0.55 kW	2x 24 VDC, 0.75 hp / 0.55 kW	2x 24 VDC, 0.63 hp / 0.47 kW	24 VDC, 0.75 hp / 0.55 kW
Brush Pad RPM	220 rpm	220 rpm	220 rpm	1500 rpm	2200 rpm
Brush down pressure	Low: 65 lbs / 29.5 kg High: 120 lbs / 54.5 kg	70 lbs / 32 kg 120 lbs / 54.5 kg	75 lbs / 34 kg 120 lbs / 54.5 kg	85 lbs / 38.5 kg 120 lbs / 54.5 kg	110 lbs / 50 kg 170 lbs / 77 kg

SOLUTION/RECOVERY SYSTEM

Solution tank capacity	22.5 gal / 85 L	22.5 gal / 85 L	22.5 gal / 85 L	22.5 gal / 85 L	22.5 gal / 85 L
Recovery tank capacity	27 gal / 102 L	27 gal / 102 L	27 gal / 102 L	27 gal / 102 L	27 gal / 102 L
Vacuum motor	24 VDC, 0.46 hp / 0.34 kW	24 VDC, 0.46 hp / 0.34 kW	24 VDC, 0.46 hp / 0.34 kW	24 VDC, 0.46 hp / 0.34 kW	24 VDC, 0.46 hp / 0.34 kW
Vacuum water lift	34 in / 864 mm	34 in / 864 mm	34 in / 864 mm	34 in / 864 mm	34 in / 864 mm

CLEANING TECHNOLOGY

Conventional	Standard	Standard	Standard	Standard	Standard
ec-H2O NanoClean	Optional	Optional	Optional	Optional	Optional

BATTERY SYSTEM

System Voltage	24 volt	24 volt	24 volt	24 volt	24 volt
Battery Types - 4 required					
Wet 225AH	Standard	Standard	Standard	Standard	Standard
Wet 260AH	Optional	Optional	Optional	Optional	Optional
Sealed AGM 220A	Optional	Optional	Optional	Optional	Optional
Battery run time (up-to hours)**	4.5	4.5	4.2	3.6	4.0
On-board or off-board charger	Standard	Standard	Standard	Standard	Standard
Smart-Fill™ Automatic Battery Watering					
Tank Capacity (Option)	0.66 gal / 2.5 L	0.66 gal / 2.5 L	0.66 gal / 2.5 L	0.66 gal / 2.5 L	0.66 gal / 2.5L

PROPELLING SYSTEM

Scrubbing speed	2.5 mph / 4.0 kph	2.5 mph / 4.0 kph	2.5 mph / 4.0 kph	2.5 mph / 4.0 kph	2.3 mph / 3.7 kph
Transport speed	2.7 mph / 4.3 kph	2.7 mph / 4.3 kph	2.7 mph / 4.3 kph	2.7 mph / 4.3 kph	2.7 mph / 4.3 kph

MACHINE SPECIFICATIONS

Length	58.5 in / 1,486 mm	59.1 in / 1,501 mm	61.1 in / 1,552 mm	59.1 in / 1,501 mm	58.5 in / 1,486 mm
Width	27.5 in / 700 mm	29.5 in / 750 mm	33.5 in / 850 mm	30.7 in / 780 mm	28.0 in / 710 mm
Height	43.3 in / 1,100 mm	43.3 in / 1,100 mm	43.3 in / 1,100 mm	43.3 in / 1,100 mm	43.3 in / 1,100 mm
Squeegee width	38.3 in / 973 mm	41.3 in / 1,049 mm	46.6 in / 1,234 mm	46.6 in / 1,234 mm	41.3 in / 1,049 mm
Aisle turnaround width	59 in / 1,499 mm	59.6 in / 1,514 mm	61.6 in / 1,565 mm	59.6 in / 1,514 mm	59 in / 1,499 mm
Weight (without batteries)	320 lbs / 145 kg	330 lbs / 150 kg	355 lbs / 161 kg	370 lbs / 168 kg	370 lbs / 168 kg
Weight (with batteries)	610 lbs / 277 kg	620 lbs / 281 kg	645 lbs / 293 kg	660 lbs / 299 kg	660 lbs / 299 kg
GWW	800 lbs / 363 kg	810 lbs / 367 kg	835 lbs / 379 kg	850 lbs / 386 kg	850 lbs / 386 kg
Sound level (operator's ear)***	67.4 dBA	67.4 dBA	67.4 dBA	68.3 dBA	66.9 dBA

WARRANTY

See your local representative for warranty information



ec-H2O NanoClean™ technology is NFSI (National Floor Safety Institute) Certified



ec-H2O NanoClean technology is registered by NSF International

* Estimated coverage rates use the practical speed and empty/fill time standards from the 2004 ISSA Cleaning Times handbook.
** Up to run-times are based on continuous scrubbing run-times, 260AH batteries, low down pressure, ec-H2O off.
*** Sound levels per ISO 11201 as recommended by the American Association of Cleaning Equipment Manufacturers & OSHA

Specifications subject to change without notice.

Engineered by Tennant Company, the Speed Scrub® 500 is the smart, reliable choice for your no-nonsense cleaning needs.

NOBLES™
ENGINEERED BY TENNANT COMPANY

EXPLORER™ H1/C2/H2/H5

Canister Extractors



Built to be tough.
Made to be easy.



Reliable carpet extractors offer cleaning performance in an easy to use, versatile design

Productivity

- Increase productivity with more time spent extracting and fewer dumps with a large 15 gal solution tank and 13.5 gal recovery tank.

Durability

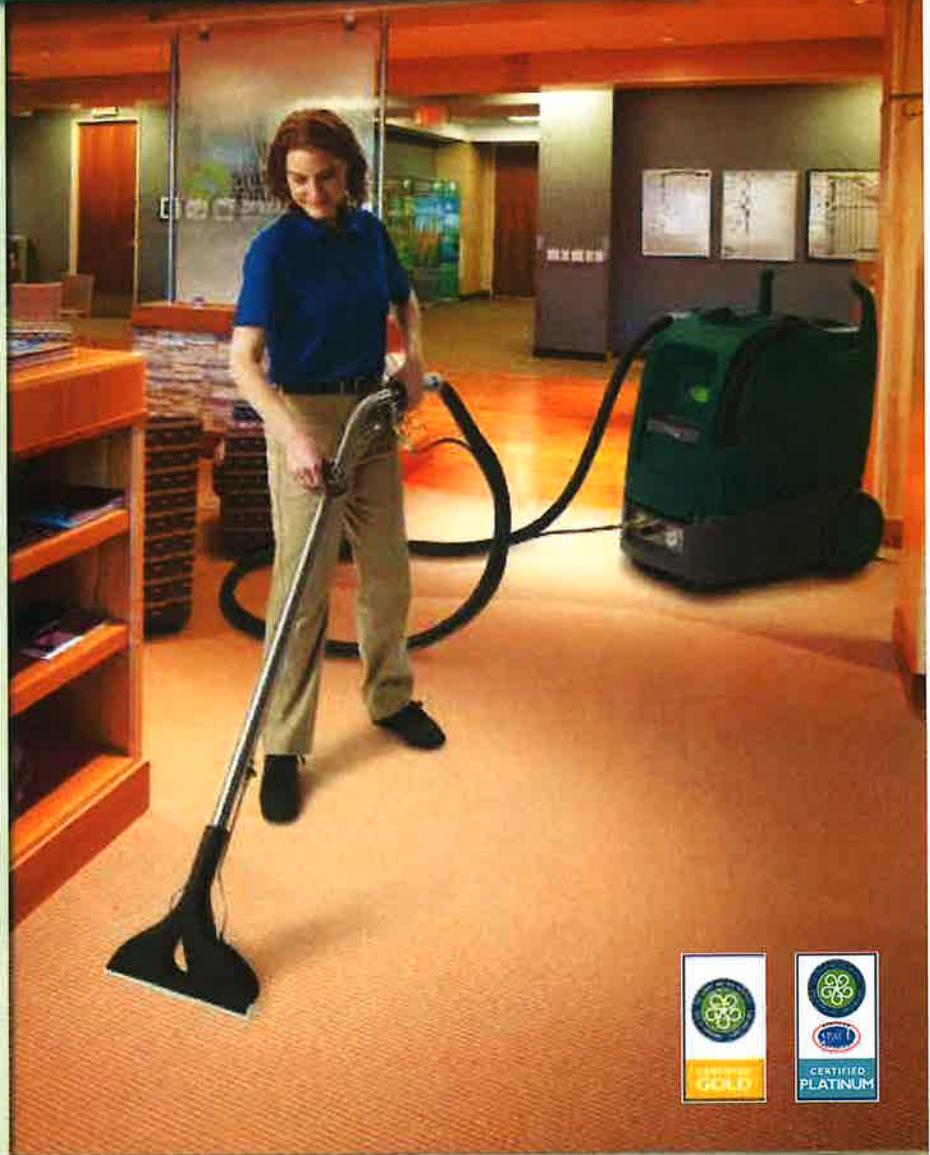
- Built for durability with Roto-mold double walled construction for outstanding performance and a longer life.

Ease of Use

- Easy grip handles allow for quick transportation to clean more spaces.

Performance

- CRI gold certified cleaning when used with Exodus Titanium Wand.
- CRI platinum certified as part of a deep cleaning system using Orbio® Multi-Surface Cleaner.



Engineered by Tennant Company, the Explorer™ Canister Extractors are the smart, reliable choice for your no-nonsense cleaning needs.

Nobles

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Explorer™	H1	C2 H2	H5
Solution tank	15 gal / 57 L	15 gal / 57 L	15 gal / 57 L
Recovery tank	13.5 gal / 51 L	13.5 gal / 51 L	13.5 gal / 51 L
Solution/Recovery hose length	15 ft / 5 m	15 ft / 5 m	15 ft / 5 m
Solution pump pressure	120 psi / 8.3 bar	220 psi / 15.2 bar	500 psi / 34 bar
In-line heater	Yes	No Yes	Yes
Vac sealed waterlift	137 in / 3480 mm	137 in / 3480 mm	155 in / 3937 mm
Power cord	25 ft / 8 m	25 ft / 8 m	25 ft / 8 m
Power cord plug type	NEMA 5-20R	NEMA 5-15P	NEMA 5-15P
Sound level (operator ear)	>70 dBA	75 dBA	>68 dBA
CRI Approvals	Gold w/ Titanium Wand	Gold w/ Titanium Wand	Gold w/ Titanium Wand Platinum w/Orbio
ETL (US/C)	Yes	Yes	Yes

Specifications subject to change without notice

1.613.001.am.en Explorer H1/C2/H2/H5 sell sheet 8/16
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Self Contained Extractor EX-SC-1020



Sleek design, reliable performance in a self contained carpet extractor.

This carpet extractor allows for the exact amount of agitation to remove tough soil without causing damage. The ergonomic handle grip and fingertip solution controls minimize hand movement during operation and allow for hours of comfortable operation. The brush meter allows the operator to adjust for optimal brush height.



Durable construction, reliable performance

Constructed of durable polyethylene that resists dents and cracks, this extractor is built to last and can withstand the demands of everyday extracting.

Greater maneuverability

This extractor is perfect for cleaning in confined areas like classrooms, office buildings, hospitals and restaurants as well as larger open areas.

Key Benefits

- Brush scrub deck with large motor and stiff brush coupled with dual spray nozzles provide outstanding cleaning performance
- Ergonomic handle with trigger solution control allows for comfortable operation
- This unit moves easily with its lightweight yet durable construction and low center-of-gravity bladder system



Self Contained Extractor

EX-SC-1020



Features	Specifications*
Product Name	EX-SC-1020
Vacuum System	
Vacuum motor HP	1.8 hp / 1.34 kW
Vacuum motor stages	3 stage
Water lift at sealed orifice	136 in / 3500 mm
Airflow through 2 in / 50 mm orifice	95 cfm / 2.7 m ³ /min
Vacuum shoe size	20 in / 510 mm
Recovery System	
Recovery tank capacity	14.5 gallon/ 55 L
Recovery tank description	Integrated bladder tank
Brush Drive System	
Brush motor amp	1.5 A
Brush RPM	1200
Brush motor RPM	1800
Brush width	17 in / 431 mm
Brush bristle type	Offset rows of nylon bristles in a chevron pattern
Brush diameter	3.31 in / 84 mm
Solution System	
Solution pump amps	1 A
Solution pump pressure	100 psi / 6.9 Bar
Solution pump voltage	120 V
Solution capacity	10 gal / 38 L
Solution pump pressure	100 psi / 6.9 Bar
Solution flow	1 gpm / 3.78 L / min
Solenoid valve	Electric
Spray jets	2 - quarter turn, quick disconnect
Total Power Consumption	14.5 Amps / 1740 Watts
Power Cord	
Power cord length	50 ft / 15.24 m (detachable)
Power cord type	16 gauge, safety yellow
Optional Accessories	Wands, hand tools, solution and recovery hoses, etc. Contact your sales rep for more information.
Dimensions/Weight/Sound Level	
Length/Width/Height/Weight/Sound	L: 43 in / 1092 mm, W: 20 in / 508 mm, H: 34 in / 863 mm, Wt: 106 lb / 48.2 kg, 78 dBA
Approvals	CRI-Bronze Seal of Approval, ETL
Warranty	See your sales representative or authorized distributor for complete warranty details.

*Specifications subject to change without notice

NOBLES
ENGINEERED BY TENNANT COMPANY

ASPEN-6 / ASPEN-10

Backpack Vacuums



Finally, affordable backpack vacuums that are comfortable

Aspen™-6 / Aspen™-10

Comfort leads to productivity

An ergonomic Deuter® branded hiking harness designed to decrease muscle fatigue and maximize operator comfort and mobility.

Safe, field-proven performance

Enhanced safety features, such as added strain relief, 67 dBA noise level and 4-stage filtration with HEPA means you can clean safer and protect your investment.

Options to suit your cleaning needs

With three tool kits available, you can choose the set that's right for your application. The premium Sidewinder® kit provides up to 50% more productive cleaning than traditional push-pull wands.



Three no-nonsense features

1. Kettle Plug



2. Sidewinder Tool



3. Affixed on/off switch





Deuter® Harness

Designed and manufactured by Deuter, the world leader in hiking backpacks.

Adjustable to operator height (operator comfort)

Stabilizer Straps for exact positioning (ergonomics and safety)

Anatomically cut hip belt (ergonomics and operator comfort)

Anatomically shaped shoulder straps (operator comfort)

Breathable mesh provides 3D airflow, reducing operator exertion (productivity and operator comfort)



View our demonstration videos at nobles.com/asp6_10

Tool kits

Base Kit

Two-piece locking aluminum wand with 14 in / 356 mm tools

Standard Telescoping Kit

Chrome telescoping wand with 14 in / 356 mm tools

Premium Sidewinder® Kit

Two-piece anodized aluminum wand with 18 in / 457 mm Sidewinder tools.



UP TO 50% MORE PRODUCTIVITY



REDUCE COST TO CLEAN

- Maximize productivity with new features such as sidewinder tool and ergonomic harness.
- Improve efficiency, mobility and productivity through use of ergonomic backpack vacuum.
- Three new tool kit options to suit a variety of cleaning needs.



HEALTH AND SAFETY

- Increased comfort and mobility for operator due to new ergonomic harness.
- Minimize safety risks and damage with new cord strain relief and affixed on/off switch accessed on the belt.



IMAGE

- Improve facility image through 4-stage filtration with HEPA.



SUSTAINABILITY

- LEED qualifying CRI certified vacuum maintains air quality through 4-stage filtration with HEPA.

The Nobles Aspen-6/Aspen-10 is the smart, reliable choice for your no-nonsense cleaning needs.

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 nobles@tennantco.com

Aspen™-6/Aspen™-10 Specifications

Airflow at 2 in / 50 mm orifice	111 cfm / 189 m3/h
Vacuum motor hp	11.6 hp / 1.2 kW each
Vacuum motor type	Single stage, thermal protected
Vacuum motor watts/amps	1200 watts / 10 A
Water lift at sealed orifice	119 in / 3023 mm
4-stage filtration system	Cloth bag, filter bag, HEPA filter, and exhaust filter
Triple filtration description	High efficiency (99.97%) at 0.3 micron
Vacuum hose length	12 ft / 3.7 m (4:1 stretch ratio)
Vacuum bag capacity	
Aspen-6	Fill design, 5.2 qt / 4.9 L
Aspen-10	Fill design, 9.2 qt / 8.7 L
Power cord length	50 ft / 15 m, safety-yellow power cord
Product weight	
Aspen-6	13 lb / 5.9 kg
Aspen-10	13.5 lb / 6.1 kg
Sound level (operator's ear)	67 dBA
Approvals	
UL (US/CAD)	Yes
Max CRI rating*	Gold certified with high-performance tool
Warranty	See your local representative for warranty information

* See CRI Website for further information
 Specifications subject to change without notice.



Carpet and Rug Institute (CRI)
 Seal of Approval -
 Certified Gold.

High Speed Burnisher



Durable design and excellent performance in a high speed burnisher.

Delivering results

High speed burnishing delivers excellent gloss on a variety of floor finishes. Easily maneuver around furniture, radiators and toe kicks with this unit's low profile base.

Operator comfort and safety

The floating handle easily adjusts to any height operator and allows for comfortable use. The twist grips incorporate a safety lock to ensure operator safety.

Durable construction

Made of durable polyethylene, this rugged unit is able to withstand years of use.

Key Benefits

- Delivers excellent gloss performance on a variety of finished floor surfaces
- Burnisher made of durable corrosion-proof polyethylene
- Floating handle ensures operator comfort



High Speed Burnisher



Features	Specifications*
Product Name	BR-1600-NDC (U.S. only) BR-1200-NDC (Canada only - see Approvals below)
Pad Drive System	
Pad speed burnishing	1600 rpm / 1200 rpm
Motor volts	120 V
Motor HP	1.5 hp / 1.12 kW
Motor type	Permanent magnet DC, circuit breaker protected
Pad diameter	20 in / 510 mm
Motor amps	17 A
Pad driver description	Flexible disk with centering lock, free floating, accommodates uneven floors
Debris Recovery System	
Dust control system	—
Productivity	
Max. coverage (per hour)	10000 ft ² /929m ²
Dimensions/Weight/Sound level	
Length	29.75 in / 755.7 mm
Width	20.75 in / 527.1 mm
Height	49 in / 1244 mm
Net weight	68 lb / 30.84 kg
Sound level (operator's ears)	70 dBA
Power Cord	
Power cord length	75 ft / 23 m
Power cord type	14 gauge, 3-wire, SJT
Approvals	1600 rpm version not available for sale in Canada. CSA Approved BR-1200-NDC version is available (see Canadian price list for additional information).
Warranty	See your sales representative or authorized distributor for complete warranty details.

*Specifications subject to change without notice

V-DMU-14 | DUAL MOTOR UPRIGHT VACUUM



Delivering reliable performance and increased power at a lower total cost of ownership.

Reduce maintenance costs and downtime

The V-DMU-14 eliminates four key issues that cause vacuums to fail, thus increasing productivity and lowering service costs versus current commercial vacuums. Backed by a lifetime belt warranty, rest assured that this vacuum will be ready for action.

Reliable durability

Major components have been proven in commercial applications for over 10 years. This vacuum delivers high value at operating costs up to 58% less than many other commercial vacuums.*

Healthy, proven performance

Standard with HEPA 3-stage filtration, the vacuum's cleaning performance is also certified Silver by the Carpet and Rug Institute's (CRI) Seal of Approval program.

Maximizing versatility over single motor uprights, the powerful V-DMU-14 can clean multiple surfaces at the flip of a switch.

*Based on acquisition cost and assumed consumables (60 bags, 1 brush roll and 8 HEPA filters per year).

Key Product Features

- LEED qualifying with CRI SOA Silver performance and noise levels less than 70 dBA.
- Increase detailing productivity and cleaning coverage with on-board crevice and upholstery tools and up to 30% longer wand reach than the competition.
- Reduce maintenance costs and downtime with two cord strain reliefs for added cord protection.

1100-110 V-DMU-14 Cut Sheet 09/11

The Tennant Company logo and other trademarks designated with the symbol "®" are registered in the United States and/or other countries. Tennant Company's products are sold and serviced through subsidiaries of Tennant Company and distributors.

Nobles
701 North Lilac Drive
Minneapolis, MN
55422 USA

USA/Canada:
+1.800.553.8033
Quebec:
+1.800.361.9050
Overseas:
+1.763.540.1315

www.nobles.com
nobles@tennantco.com

V-DMU-14 | DUAL MOTOR UPRIGHT VACUUM



FEATURES	SPECIFICATIONS*
Product Name	V-DMU-14
Vacuum System	
Airflow at 2 in / 50 mm orifice	120 cfm / 3.4 m ³ /m
Vacuum motor hp	1.6 hp / 1.19 kW
Vacuum motor type	Single stage, thermal protected, clean air
Vacuum motor watts/amps	1200 watts / 10 A
Water lift at sealed orifice	65 in/ 1650 mm
Brush Drive System	
Brush belt description	PolyV lifetime belt
Brush type	Metal brush roll with natural bristles
Brush size	12 in / 305 mm length
Brush motor rating	1.85A / 222W
Brush height	Automatic, self-adjusting
Brush RPM	4250 RPM
Filtration	
Triple filtration system	Filter bag, vac motor filter, and HEPA filter
Triple filtration description	High efficiency (99.97%) at 0.3 micron
Vacuum bag capacity	Fill design, 3.8 qt / 3.6 L
Electrical	
Power cord length	50 ft / 15 m, 3 wire commercial safety-yellow cord with thermal protection switch
Chassis/Body Construction	
Construction	Injection molded ABS
Accessories	
Standard	On-board crevice tool, dusting brush with telescopic aluminum wand with 15 ft reach (4:1 stretch)
Dimensions / Weight / Sound Level	
Length	12.5 in / 320 mm
Width	14.75 in / 370 mm
Height	44 in / 1120 mm
Weight with cord	24 lb / 11 kg
Sound level (at operator's ear)	< 70 dBA
Approvals	ETL, (US/C)
Warranty	See your sales representative or authorized distributor for complete warranty details.

*Specifications subject to change without notice

1100-110 V-DMU-14 Cut Sheet 09/11

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Nobles
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Quebec:
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Overseas:
+1.763.540.1315

www.nobles.com
nobles@tennantco.com

Commercial Dryer/ Air Mover



Compact, stackable three-speed air mover dries areas quickly.

Powerful airflow

Reduce drying time dramatically with this powerful three-speed air mover.

Reduce storage space

Convenient, stackable units free up valuable space in closets, storage areas and transport vehicles.

Ease of use

Optional wheeled hand cart for easy transportation and handling.



Key Benefits

- Quickly dry carpet, hard floors, fresh paint, concrete sealer and much more.
- This unit can be placed in three positions, which allows for optimal directional airflow.
- Designed to be both stackable and lightweight for improved ease of use and storage. Optional wheeled hand cart available (Part #9014821).



Commercial Dryer/ Air Mover



Features	Specifications*
Product Name	Commercial Dryer/Air Mover
Blower System	
Blower motor HP	0.6 hp / 522 Watt
Blower motor amps	4.35 amps at top speed
Blower motor switch	Rotary
Blower motor volts	120 V / 60 Hz
Blower motor speeds	(3) three speeds
Maximum air movement	1350 cfm (710 rpm / 1105 rpm / 1550 rpm)
Chassis and Body Construction	
Chassis construction	Blown polyethylene
Metal parts coating	Epoxy powder coated, acrylic paint or nickel/zinc plated, green Phenolic paint
Features	Stackable, three positions using kickstand, optional wheel hand cart (Part #9014821)
Dimensions/Weight	
Height	18.5 in / 47 cm
Width	15 in / 38.1 cm
Length	18 in / 45.7 cm
Weight	22.5 lb / 10.2 kg
Power Cord	
Length	18.5 ft / 5.6 m
Protection Grade	IP20
Sound Pressure level	69 dBA
Approval	UL
Warranty	See your sales representative or authorized distributor for complete warranty details.

*Specifications subject to change without notice

15.11 Tab J – Contract Price

Proposer: SKB FACILITIES & MAINTENANCE

(Type or Print Company Name)

Proposer shall state the total annual cost for Regular Work, defined as all janitorial work described in Section 10, Scope of Services, in Column D. The total annual cost for Regular work shall include all costs associated with providing Regular work, including labor, supplies, equipment, space, overhead and profit and shall include the amount due to any subcontractors. The first year total cost should equal the total of all the amounts of the Pricing Detail Forms provided in Attachment G.

	A	B	C	D
	Total Annual Labor Cost	Annual Costs, Supplies	Annual Costs, excluding Supplies & Labor	Total Cost (sum of columns A, B and C)
Year 1	\$ 1,352,240.16	\$ 73,719.08	\$ 323,957.84	\$ 1,749,917.08
Year 2	\$ 1,414,351.20	\$ 73,719.08	\$ 332,196.68	\$ 1,820,266.96
Year 3	\$ 1,476,462.36	\$ 73,719.08	\$ 338,306.75	\$ 1,888,488.19
TOTALS	\$ 4,243,053.72	\$ 221,157.24	\$ 994,461.27	\$ 5,458,672.23

Accidents, natural disasters, major mechanical failures, or other unexpected events create a sudden and unanticipated need for additional labor hours beyond the Scope of Services or require the performance additional janitorial services as requested by the Authority. Such work shall be considered single occasion and limited in duration ("Single-Occasion Work") and part of the Contract's Scope of Work as long as the Single-Occasion Work is deemed by the Authority to be necessary to avoid jeopardizing public health or safety or the continuity of Airport operations. Proposal shall state the labor rates that Proposer proposes to charge for the type of labor involved in Single-Occasion Work:

Hourly Labor Rates for Single-Occasion Work

	Janitor	Traveling Waxer/Shampooer	Window Cleaner
Year 1	\$ 15.93	\$ 16.00	\$ 50.00
Year 2	\$ 16.57	\$ 16.80	\$ 50.00
Year 3	\$ 17.19	\$ 17.50	\$ 50.00

ATTACHMENT G
PRICING DETAIL FORMS

Terminal A

Item	Units	Measure	Quality Standard Reference Section
Ticket Area			
Carpet / Public		Ft ²	11.2.16
Terrazzo	56,250	Ft ²	11.2.18
Tile		Ft ²	
Walls		Walkthrough	11.2.5
Windows		Walkthrough	11.2.3
Ceilings		Walkthrough	11.2.19
Fixtures & Signs		Walkthrough	11.2.1
Tables/Counters	9		11.2.20
Seating	48		
Stairwells	2	Ea.	11.2.13
Moving Walkways		Ea.	11.2.12
Elevators	3	Ea.	11.2.11
Waste Receptacles	4	Ea.	11.2.8
Water Fountains	1	Ea.	11.2.9
Total Cost for Terminal A Ticket Area	\$ 209,990.05		Annually
Restrooms			
Air Freshener		Ea.	
Changing Tables	3	Ea.	11.2.1
Diaper Dispenser		Ea.	11.2.1
Feminine Hygiene Dispenser	6	Ea.	11.2.1
Feminine Hygiene Receptacle		Ea.	11.2.1
Floors – Tile	3,173	Ft ²	11.2.17
Mirrors	10	Ea.	
Paper Towel Dispenser	10	Ea.	11.2.1
Partitions	35	Ea.	11.2.1
Sinks/Counters	9	Ea.	11.2.1
Soap Dispenser	9	Ea.	11.2.1
Stalls	19	Ea.	11.2.1
Toilet Paper Dispenser	6	Ea.	11.2.1
Urinal	8	Ea.	11.2.1
Walls		Walkthrough	11.2.5
Waste Receptacles	2	Ea.	11.2.8



Sharps Containers		Ea.	11.2.1
Total Cost for Terminal A Ticket Area Restrooms	\$ 26,248.76		Annually
Mezzanine Level			
Carpet / Authority Offices	6,000	Ft ²	11.2.16
Terrazzo	3,250	Ft ²	11.2.18
Tile	900	Ft ²	
Walls	Walkthrough		11.2.5
Windows	Walkthrough		11.2.3
Ceilings	Walkthrough		11.2.19
Fixtures & Signs	Walkthrough		11.2.1
Tables/Counters	Walkthrough		11.2.20
Seating	Walkthrough		11.2.5
Stairwells	2	Ea.	11.2.13
Elevators	1	Ea.	11.2.11
Waste Receptacles		Ea.	11.2.8
Water Fountains	1	Ea.	11.2.9
Total Cost for Terminal A Mezzanine Level	\$ 26,248.76		Annually
Total Cost for Terminal A	\$ 262,487.57		Annually



Concourse A

Item	Units	Measure	Quality Standard Reference Section
Gates			
Carpet / Public	10,316	Ft ²	11.2.16
Terrazzo	22,250	Ft ²	11.2.18
Walls		Walkthrough	11.2.5
Windows		Walkthrough	11.2.3
Ceilings		Walkthrough	11.2.19
Fixtures & Signs		Walkthrough	11.2.1
Gate Seating /Tables/Counters	336		11.2.20
Passenger Loading Bridges	9	Ea.	
Stairwells	2	Ea.	11.2.13
Moving Walkways	1	Ea.	11.2.12
Elevators		Ea.	11.2.11
Waste Receptacles	3	Ea.	11.2.8
Water Fountains		Ea.	11.2.9
Total Cost for Concourse A Gates	\$ 209,990.05		Annually
Restrooms			
Air Freshener		Ea.	
Changing Tables	3	Ea.	11.2.1
Diaper Dispenser		Ea.	11.2.1
Feminine Hygiene Dispenser	5	Ea.	11.2.1
Feminine Hygiene Receptacle		Ea.	11.2.1
Floors – Tile		Ft ²	11.2.17
Mirrors	6	Ea.	
Paper Towel Dispenser	5	Ea.	11.2.1
Partitions	5	Ea.	11.2.1
Sinks/Counters	8	Ea.	11.2.1
Soap Dispenser	5	Ea.	11.2.1
Stalls	5	Ea.	11.2.1
Toilet Paper Dispenser	7	Ea.	11.2.1
Urinal		Ea.	11.2.1
Walls		Walkthrough	11.2.5
Waste Receptacles	4	Ea.	11.2.8
Sharps Containers		Ea.	11.2.1
Total Cost for Concourse A Restrooms	\$ 46,248.76		Annually
Ramp Level			



Memphis-Shelby County Airport Authority
 Memphis, Tennessee

Hallways		Ft ²	
Authority Offices	1,655	Ft ²	
Authority Break Rooms		Ft ²	
Compactor Area	250	Ft ²	
Ramp Area		Walkthrough	
Total Cost for Concourse A Ramp Level	\$ 6,248.75		Annually
Total Cost for Concourse A	\$ 262,487.56		Annually

Terminal B

Item	Units	Measure	Quality Standard Reference Section
Ticket Area			
Carpet / Public		Ft ²	11.2.16
Terrazzo	116,450	Ft ²	11.2.18
Tile	2,897	Ft ²	
Walls		Walkthrough	11.2.5
Windows		Walkthrough	11.2.3
Ceilings		Walkthrough	11.2.19
Fixtures & Signs		Walkthrough	11.2.1
Tables/Counters	23		11.2.20
Seating	79		
Stairwells	5	Ea.	11.2.13
Moving Walkways		Ea.	11.2.12
Elevators	3	Ea.	11.2.11
Waste Receptacles		Ea.	11.2.8
Water Fountains	4	Ea.	11.2.9
Total Cost for Terminal B Ticket Area	\$ 559,973.46		Annually
Restrooms			
Air Freshener		Ea.	
Changing Tables	9	Ea.	11.2.1
Diaper Dispenser		Ea.	11.2.1
Feminine Hygiene Dispenser	10	Ea.	11.2.1
Feminine Hygiene Receptacle	3	Ea.	11.2.1
Floors – Tile		Ft ²	11.2.17
Mirrors	27	Ea.	
Paper Towel Dispenser	22	Ea.	11.2.1
Partitions	23	Ea.	11.2.1
Sinks/Counters	37	Ea.	11.2.1
Soap Dispenser	22	Ea.	11.2.1
Stalls	19	Ea.	11.2.1
Toilet Paper Dispenser	21	Ea.	11.2.1
Urinal	15	Ea.	11.2.1
Walls		Walkthrough	11.2.5
Waste Receptacles	25	Ea.	11.2.8
Sharps Containers		Ea.	11.2.1
Total Cost for Terminal B Ticket Area Restrooms	\$ 69,996.68		Annually



Mezzanine Level			
Carpet / Authority Offices	30,581	Ft ²	11.2.16
Terrazzo	12,166	Ft ²	11.2.18
Tile	1,250	Ft ²	
Walls		Walkthrough	11.2.5
Windows		Walkthrough	11.2.3
Ceilings		Walkthrough	11.2.19
Fixtures & Signs		Walkthrough	11.2.1
Tables/Counters		Walkthrough	11.2.20
Seating		Walkthrough	11.2.5
Stairwells	2	Ea.	11.2.13
Elevators	1	Ea.	11.2.11
Waste Receptacles	4	Ea.	11.2.8
Water Fountains	3	Ea.	11.2.9
Total Cost for Terminal B Mezzanine Level	\$ 69,996.69		Annually
Total Cost for Terminal B	\$ 699,966.83		Annually

Terminal C

Item	Units	Measure	Quality Standard Reference Section
Ticket Area			
Carpet / Public		Ft ²	11.2.16
Terrazzo	56,250	Ft ²	11.2.18
Tile		Ft ²	
Walls		Walkthrough	11.2.5
Windows		Walkthrough	11.2.3
Ceilings		Walkthrough	11.2.19
Fixtures & Signs		Walkthrough	11.2.1
Tables/Counters	11		11.2.20
Seating	52		
Stairwells	4	Ea.	11.2.13
Moving Walkways		Ea.	11.2.12
Elevators	3	Ea.	11.2.11
Waste Receptacles	4	Ea.	11.2.8
Water Fountains	1	Ea.	11.2.9
Total Cost for Terminal C Ticket Area	\$ 209,990.04		Annually
Restrooms			
Air Freshener		Ea.	
Changing Tables	5	Ea.	11.2.1
Diaper Dispenser		Ea.	11.2.1
Feminine Hygiene Dispenser		Ea.	11.2.1
Feminine Hygiene Receptacle	13	Ea.	11.2.1
Floors – Tile	2,878	Ft ²	11.2.17
Mirrors	14	Ea.	
Paper Towel Dispenser	9	Ea.	11.2.1
Partitions	31	Ea.	11.2.1
Sinks/Counters	26	Ea.	11.2.1
Soap Dispenser	16	Ea.	11.2.1
Stalls	26	Ea.	11.2.1
Toilet Paper Dispenser	19	Ea.	11.2.1
Urinal		Ea.	11.2.1
Walls		Walkthrough	11.2.5
Waste Receptacles	9	Ea.	11.2.8
Sharps Containers		Ea.	11.2.1
Total Cost for Terminal C Ticket Area Restrooms	\$ 26,248.76		Annually



Memphis-Shelby County Airport Authority
Memphis, Tennessee

Mezzanine Level			
Carpet / Authority Offices	6,000	Ft ²	11.2.16
Terrazzo	3,250	Ft ²	11.2.18
Tile	900	Ft ²	
Walls	Walkthrough		11.2.5
Windows	Walkthrough		11.2.3
Ceilings	Walkthrough		11.2.19
Fixtures & Signs	Walkthrough		11.2.1
Tables/Counters	Walkthrough		11.2.20
Seating	Walkthrough		11.2.5
Stairwells	2	Ea.	11.2.13
Elevators	1	Ea.	11.2.11
Waste Receptacles		Ea.	11.2.8
Water Fountains	2	Ea.	11.2.9
Total Cost for Terminal C Mezzanine Level	\$ 26,248.76		Annually
Total Cost for Terminal C	\$ 262,487.56		Annually

Concourse C

Item	Units	Measure	Quality Standard Reference Section
Gates			
Carpet / Public	18,500	Ft ²	11.2.16
Terrazzo	28,750	Ft ²	11.2.18
Walls		Walkthrough	11.2.5
Windows		Walkthrough	11.2.3
Ceilings		Walkthrough	11.2.19
Fixtures & Signs		Walkthrough	11.2.1
Gate Seating /Tables/Counters	1,134		11.2.20
Passenger Loading Bridges	15		
Stairwells	7	Ea.	11.2.13
Moving Walkways		Ea.	11.2.12
Elevators	3	Ea.	11.2.11
Waste Receptacles	20	Ea.	11.2.8
Water Fountains	10	Ea.	11.2.9
Total Cost for Concourse C Gates	\$ 209,990.05		Annually
Restrooms			
Air Freshener		Ea.	
Changing Tables	4	Ea.	11.2.1
Diaper Dispenser		Ea.	11.2.1
Feminine Hygiene Dispenser		Ea.	11.2.1
Feminine Hygiene Receptacle	5	Ea.	11.2.1
Floors – Tile		Ft ²	11.2.17
Mirrors	12	Ea.	
Paper Towel Dispenser	5	Ea.	11.2.1
Partitions	6	Ea.	11.2.1
Sinks/Counters	9	Ea.	11.2.1
Soap Dispenser	9	Ea.	11.2.1
Stalls	5	Ea.	11.2.1
Toilet Paper Dispenser	10	Ea.	11.2.1
Urinal		Ea.	11.2.1
Walls		Walkthrough	11.2.5
Waste Receptacles	8	Ea.	11.2.8
Sharps Containers		Ea.	11.2.1
Total Cost for Concourse C Restrooms	\$ 46,248.76		Annually



Ramp Level			
Hallways		Ft ²	
Authority Offices	5,236	Ft ²	
Authority Break Rooms		Ft ²	
Compactor Area	250	Ft ²	
Ramp Area		Walkthrough	
Total Cost for Concourse C Ramp Level	\$ 6,248.75		Annually
Total Cost for Concourse C	\$ 262,487.56		Annually



DBE ASSURANCE STATEMENT/LETTER OF INTENT

Respondent:

Name of Firm: SKB FACILITIES & MAINTENANCE

Address: 3571 WINCHESTER RD

City: MEMPHIS State: TN Zip: 38118

Telephone: 901-791-2162

DBE:

Name of Firm: ACTION CHEMICAL dba. Action Janitorial Paper Safety

Address: 275 CUMBERLAND ST.

City: MEMPHIS State: TN Zip: 38112

Description of work to be performed by DBE:

Year 1: SKB will make capital equipment purchase from Action Chemical in the amount of \$55,023.69

Year 1: SKB will make a monthly purchase of \$1,000 from Action Chemicals.

Year 2-3: SKB will make monthly purchases of \$1,000 from Action Chemicals.

The Respondent is committed to utilizing the above-named DBE for the work described above. The estimated dollar value of this work is \$ 55,023.69 , which is % of the total base proposal.

AFFIRMATION

The above-named DBE affirms that it will perform the portion of the contract for the estimated dollar value as stated above.

By: [Signature] VP. Sales & Marketing 02/02/2018 Garland Holman
Signature of DBE and Title Date Name

By: _____
Signature of 2nd/3rd Tier Subcontractor and Title Date Name

If the Respondent does not receive award of the prime contract, any and all representations in this letter of Intent and Affirmation shall be null and void.

By: [Signature] President 2/7/18 Shane Bynum
Signature of Respondent and Title Date Name



275 Cumberland Street
 Memphis, TN 38112
 901-522-8783 Phone 901-452-1366 Fax
 www.actionchemical.com

Quote

DATE	QUOTE NO.
2/5/2018	3453

CUSTOMER BILL TO:

SKB
 3571 Winchester Road.
 MEMPHIS, TN 38118
 791-2162 United States

CUSTOMER SHIP TO:

SKB (Kelley Bynum)
 3571 Winchester Road
 MEMPHIS, TN 38118
 (901), TN 791-2162
 kelley@skbfm.com

Customer Contact		Customer Phone	P.O. No.	Terms	Quote Good for	Rep
				Net 30		HOUSE
Qty	Item No.	Description	U/M	Price	Total	
1	000	TEN-907486, EX-SC-1020 - Self-Contained Extractor Patented 10-gal. Expansion cavity, 20" (508mm) cleaning path, 100 psi, 137" (3480mm) waterlift. U.S. Patent #4,956,891. ETL US/C* CRI certified, Bronze Cleaning Performance.		2,175.00	2,175.00T	
1	000	TEN-9011455, Explorer H5 Heated Canister Extractor 15 gal. capacity, variable 200-500 psi, Heated, 13" (330mm) High Airflow Titanium Carpet wand with 2 Unijets, 15-ft. (4.5m) vacuum and solution hoses. 2-40 ft(12.2m) Hospital Grade safety yellow electrical cords (dual cord 15A each cord). Hand tool sold separately. CRI certified - Gold Cleaning Performance with High Airflow Titanium wand & Platinum when used with Orbio solution.		3,756.52	3,756.52T	
2	000	TEN-SSR-800-D, Speed Scrub® Ride-On Scrubber 800 mm/32" - Disk		12,833.97	25,667.94T	
1	000	TEN-9007354, ASC-15 All Surface Cleaning Machine		2,921.09	2,921.09T	
7	000	TEN-1068027, Upright Dual Motor Vacuum		384.78	2,693.46T	
1	000	TEN-9013484, BackPack Vacuum		376.30	376.30T	
5	000	TEN-9014819, Air Mover Floor Blower		179.35	896.75T	

Subtotal

Sales Tax (9.25%)

Total

Signature



901-522-8783 Phone 901-452-1366 Fax
www.actionchemical.com

Quote

DATE	QUOTE NO.
2/5/2018	3453

CUSTOMER BILL TO:

SKB
3571 Winchester Road.
MEMPHIS, TN 38118
791-2162 United States

CUSTOMER SHIP TO:

SKB (Kelley Bynum)
3571 Winchester Road
MEMPHIS, TN 38118
(901), TN 791-2162
kelley@skbfm.com

Customer Contact		Customer Phone	P.O. No.	Terms	Quote Good for	Rep
				Net 30		HOUSE
Qty	Item No.	Description	U/M	Price	Total	
3	TEN-9007336/1045875	FM-20-SS 20" HEAVY DUTY FLOOR MACHINE 175RPM INCLUDES PAD DRIVER AND 4 GALLON SOLUTION TANK	EA	775.95	2,327.85T	
1	000	TEN-9007347, BR-1600-NDC Burnisher - 1600 rpm 20" (508mm) Complete package includes flexible pad driver and a 75-ft. (23m) power cord.		1,092.25	1,092.25T	
1	TEN-MVSS500-0006	(T-5), NOBLES SS500 28" DUAL DISK WALK BEHIND AUTOMATIC SCRUBBER WITH 225AH BATTERIES, ON-BOARD CHARGER AND SMART FILL,	EA	8,457.77	8,457.77T	

Subtotal	\$50,364.93
Sales Tax (9.25%)	\$4,658.76
Total	\$55023.69

Signature _____

18.4 Voluntary Disclosure of Respondent Data (Voluntary)
Do not submit this form on company letterhead

<u>VOLUNTARY DISCLOSURE OF RESPONDENT DATA</u>		
For Title VI Compliance, the Authority asks for <u>voluntary disclosure</u> of the following information:		
Gender:	Male	<input checked="" type="checkbox"/>
	Female	<input type="checkbox"/>
Race:	Caucasian	<input type="checkbox"/>
	Black American	<input checked="" type="checkbox"/>
	Hispanic American	<input type="checkbox"/>
	Native American	<input type="checkbox"/>
	Subcontinent Asian American	<input type="checkbox"/>
	Asian-Pacific American	<input type="checkbox"/>
	Other (please specify)	<input type="checkbox"/>



Uniform Certification Agency

CERTIFIED LOCAL SMALL BUSINESS ENTERPRISE

Presented To

SKB Facilities & Maintenance, Inc

HAS SUCCESSFULLY MET ALL REQUIREMENTS AS ESTABLISHED BY THE MMBC CONTINUUM AND THE UNIFORM CERTIFICATION AGENCY FOR CERTIFICATION AS A LOCAL SMALL BUSINESS ENTERPRISE. THIS CERTIFICATE RELATES TO LSB STATUS AND IS NOT CERTIFICATION OF EXPERTISE IN ANY PARTICULAR TRADE OR FIELD.

Gayca Westbrook Peltier Esq.
Director of Certification

8102138

Certificate Number

05/02/2018

Expiration Date

The Uniform Certification Agency is operated by The MMBC Continuum.



Uniform Certification Agency

CERTIFIED SMALL BUSINESS ENTERPRISE

Presented To

Action Chemical, Inc.

HAS SUCCESSFULLY MET ALL REQUIREMENTS AS ESTABLISHED BY THE MMBC CONTINUUM AND THE UNIFORM CERTIFICATION AGENCY FOR CERTIFICATION AS A SMALL BUSINESS ENTERPRISE. THIS CERTIFICATE RELATES TO SBE STATUS AND IS NOT CERTIFICATION OF EXPERTISE IN ANY PARTICULAR TRADE OR FIELD.

Jessyca Westbrook Pettes, Esq.

Director of Certification

402317

Certificate Number

04/28/2018

Expiration Date

Tennessee
Uniform
Certification
Program

Member Agencies

- Tennessee Department of Economic Development
- Memphis Area Small Business Development Center
- Chattanooga Metropolitan Area Small Business Development Center
- Memphis State County Airport Authority
- Memphis Nashville Airport Authority
- Chattanooga Area Regional Council of Governments
- Metropolitan Area Council of Governments
- East Tennessee State University
- Southwest Tennessee Council of Governments
- Franklin Area Council of Governments
- Chattanooga County Council of Governments
- Regional Transportation Authority (RTA) - TN
- Nashville Metropolitan Transit Authority
- Knoxville Area Council of Governments
- Jackson Area Council of Governments
- Johnson City Council of Governments
- Chattanooga Regional Airport Authority
- Chattanooga Area Council of Governments

Tennessee Uniform Certification Program

*Be It Known That
Action Chemical
Memphis, TN*

Company Name / City / State

Is certified as a Disadvantaged Business Enterprise through the

*Tennessee Uniform Certification Program
(TNUCP)*

*This Certificate represents that the company named above
has been determined to be a minority and/or women-owned
business pursuant to 49CFR Part 23 and 26.*

*This certification is subject to suspension or revocation, and is
renewable annually upon the issuance date. Third parties should
contact the TNUCP directly to confirm the status of this
certification.*

Issuance Date: June 1, 2017

*This certificate relates to DBE status and is not certification of
expertise in any particular trade or field.*



TNUCP member Agency

[Handwritten Signature]
MSCAA Member Signature

Executive Summary

It has taken SKB Facilities & Maintenance only 8 years to create a successful, ever-growing high-tech, best-in-class service organization. The numbers verify our growth and success: in 2014, we generated \$1.7 million in revenue, \$.2.2 million in 2015, over 3.35 million in 2016, growing to 4 million last year. Projections for 2018 are for 5.5 million in locally-owned, locally-generated economic growth and stability for nearly 300 employees.

Of course, outstanding quality control procedures, detailed processes, and our commitment to our most precious asset (our employees) are requirements for every successful business model. As a result, SKB Facilities & Maintenance was selected as a partner (by the current service provider) to perform 2nd shift general cleaning and 3rd shift floor-maintenance responsibilities for at Memphis International Airport in 2015. By tapping a wealth of local skills / resources, our tech-savvy, customized in-house trained talent pool, already capably meeting and exceeding the needs of the Airport Authority, has the proven expertise, experience and equipment required to meet the demands of Memphis' vital transportation facility.

This successful, family-owned enterprise has invested extensively in the necessary equipment, training, management / employee development, and area resources to ensure our service capabilities are continuously upgraded. SKB Facilities & Maintenance is fully prepared for the inevitable growth of this critical global transportation hub. Our team is in place, and stands ready, a 5-minute, 2.5 miles-away service team with everything required to maintain the well-being of our transportation economy.

- A local, “next-door to the airport” workforce has an in-house training center and ultra-convenient proximity to meet and exceed the demands of a highly visible, economically-critical facility undergoing a vital renovation project
- Our high-tech electronic quality control team processes enable instant service response capability and nimble, solutions-oriented issue resolution
- This local, expanding workforce has a personal investment in an opportunity to present the cleanest, most well-run and efficient travel facility

2008 – SKB Facilities & Maintenance Inc. established

2016 – MLGW *Spark and Flame Award Winner*

Memphis Business Journal – One of the Top Minority-Owned businesses

2017 – Finalist, Robert. R. Church *Quality Business of the Year*

Recognized by Mayor Strickland as *SBE Champion, City of Memphis*