

Team Up For Safety

SHE Program Update

MSFC S&MA Office

Industrial Safety Department



Required Activities for All MSFC Organizations

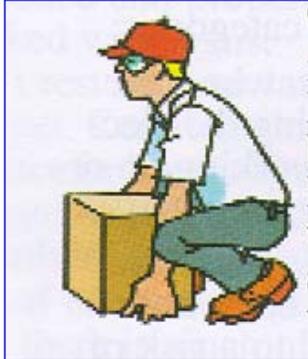
- See attachments to Safety Day 2002 letter; review with employees, & post in visible locations
- Demonstrate & observe employees practicing safe manual lifting techniques (see slides 3 & 4, handout)
- Review new SHE Committee System with employees (slides 5 to 9, handout)
- Verify that each employee can identify the names of their organization's MSAT & SHE Committee members (slide 10 & handout)
- Verify employee familiarity with the Safety Concerns Reporting System (SCRS), & how to submit reports (slides 11 & 12)
- Establish, review, & post Housekeeping Rules in all work areas (slide 13)
- Verify that each employee can demonstrate the ability to access an MSDS for a work area chemical, day or night (slide 14)
- Verify that employees understand the recycling & energy conservation procedures & guidelines for their work area (slide 15)
- Review Fire Prevention Reminder (slide 16)



The following pages will assist you in completing these activities.

THINK About Lifting!

1
Start
CLOSE
to the
load...



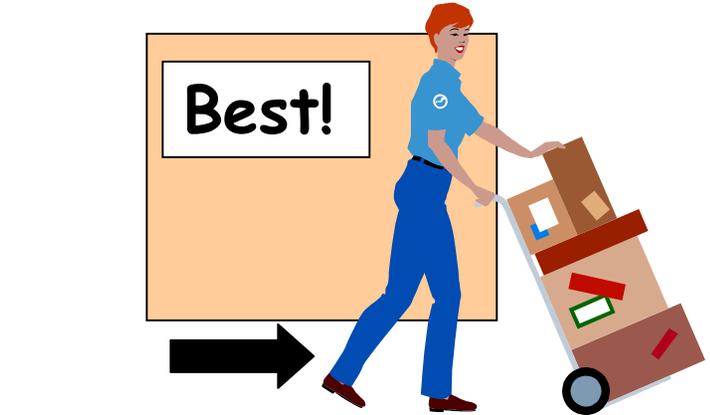
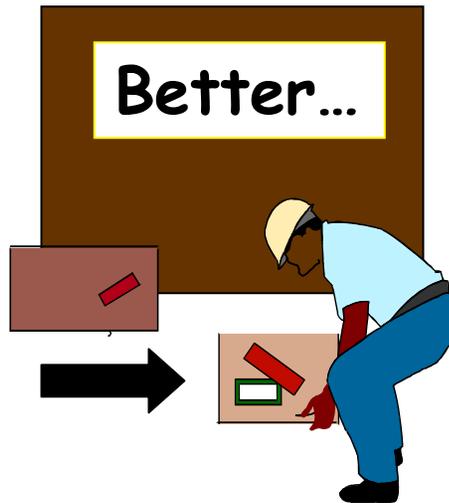
2
Bend your
knees, not
your back!



3
Let your legs
do the
lifting, and
keep your
back straight!



4
Avoid bending or
twisting at the waist...



5
Use mechanical aids
whenever possible!

MSFC Back Injuries Are Common

- 2nd most common type of injury
- May result from slips, trips, or falls
- Most occur with manual lifting
 - Not always due to load weight
 - Employee picked up a file folder → lost time!
 - Employee picked up waste basket → lost time!
 - Often caused by the way you move
- We lose flexibility as we age

New SHE Committee System

- Prompted by our 2001 SHE self-assessment
- Top-level management needed a way to get & consider employee input about SHE
 - No direct employee representation on the Central SHE Committee or Area SHE Committee
 - Membership of the 2 committees nearly identical
- Committee involvement level should equate to hazard level of organization's work
- MSFC needed input from affected employees to accomplish corrective action for other SHE Program improvements, too

New SHE Committee System

- **Marshall Team Meeting (MTM) replaced the *Central SHE Committee***
 - Still chaired by Center Director
 - Still meets first Monday of each month
 - Still reviews SHE performance
 - Scope expanded to address other topics of Center-wide interest
- **SHE Committee replaced the *Area SHE Committee***
 - Still reviews SHE performance issues & proposes solutions to top-level management
 - Still tracks SHE performance & selects topics to be presented during top-level management meeting
 - Still meets the Wednesday before the MTM
 - Different chairperson and membership

New SHE Committee System

- **Other changes related to new SHE Committee**
 - At least 50% of members must be non-supervisory & non-management employees
 - Some members must be contractor employees
 - Voting members include:
 - 5 directorates that perform hazardous operations
 - Representative of the Building Managers
 - Representative of the Contractor Safety Forum
 - Technical experts representing specific hazardous operations or Center-wide SHE Program functions
 - Chairperson is elected by members
 - SHE organizations (QS50, AD02, AD10 & AD60), and MSFC organizations that do non-hazardous work, participate as non-voting members

New SHE Committee System

- **SHE Subcommittees**

- Represent technical expertise in specific classes of hazardous operation
- Mixture of civil servants & contractors
- Will be working on targeted SHE Program improvements
 - Cryogenic Operations: Tommy Barron/LB&B
 - Hazardous Chemicals & Materials: Laurel Karr/SD46
 - Job Hazard Analysis (JHA): Charlie Davis/Thiokol
 - Laboratory Operations: NanceJo Ogozalek/ED33
 - Lifting Devices & Equipment²: Keith Sharp/AD23
 - Lockout/Tagout (LOTO): T.D. Jackson/EG&G
 - Machine Shop Operations: Dan Donovan/MCI
 - Pressure Operations²: Jack Caudle/AD23
 - Radiation²: Brian Ramsey/SD50
 - Wellness & Ergonomics: To be determined
 - Building Manager Subcommittee²: Pete Allen/AD20
 - Contractor Safety Forum²: Phil Robbins/CSC
 - Emergency Preparedness²: Cathy Miller/AD62
 - Energy Conservation & Recycling²: Dan Adams/AD10
 - MSAT²: Irene Taylor/ED10
 - PEP Survey³: Kristie French/QS50
 - SHE Communications Team²: Norma Horton/QS50
 - SHE Training Committee²: Pat Schultz/CD20
 - VPP Implementation Team²: Keith Cornett/UP10

Marshall Team Meeting

Revised 8/26/02

Chair: Art Stephenson

Report

SHE Committee

Chair: Elected by Members
Sponsor: Axel Roth

CSF

Furnish 1 Member

Coordinate

Furnish 5 Members

Furnish 1 Member

Furnish 11 Members

Coordinate

Directorates & Offices (w/o HAZOPS)

- Customer & Employee Relations
- Safety and Mission Assurance Office
- Procurement Office
- Office of Chief Counsel
- Office of Chief Financial Officer
- Equal Opportunity Office
- Systems Management Office
- Office of the Director

Directorates (With HAZOPS)

- Engineering Directorate
- Science Directorate
- Space Transportation Directorate
- Flight Projects Directorate
- Center Operations Directorate

Building Manager Subcommittee

SHE Practitioner Subcommittees

- Wellness and Ergonomics
- JHA
- LOTO
- Lifting Operations*
- Pressure Ops*
- Radiation*
- Hazardous Chemicals/Materials
- Machine Shop
- Cryogenics
- Laboratory Ops

Center-Wide Employee Committees

- Marshall Safety Action Team (MSAT)*
- Communications*
- PEP (Ad Hoc)
- Training*
- Confined Spaces
- Emergency Preparedness*
- Energy & Water Conservation

Existing Teams & Forum

* Existing Subcommittee

Employee/Management SHE Committees at least 50% Employees

CAER

Employee Assistance	Training	Communication
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S&MA

Industrial Safety	Worker's Comp.	Mission Success
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CO

Facilities Engineering	Protective Services	Emergency Operations
Occupational Medicine	Environmental Health	Environmental Engineering
Logistics	Aviation Safety	Physical Fitness

Functional Support

Your Voice in the SHE Program

- You should have at least 2 people who directly represent you
 - A SHE Committee member or advisor (non-voting member)
 - See the SHE Committee chart handout to identify yours
 - A Marshall Safety & Health Action Team (MSAT) volunteer
 - Check <http://msat.msfc.nasa.gov/about/members.doc> to identify yours
- You can contact the SHE representatives who support your work area
 - Go to the SHE Website, then go to 'Who to Call', and click on 'Building Manager Points of Contact'
 - When the 'Building Assignments' screen comes up, enter your building number, and click on 'Search'
 - <https://msfcsma1.msfc.nasa.gov/dbwebs/apps/scrs/buildmanlist.taf>
 - You will see Area Manager, Building Manager & SHE representatives listed for your building
- You can submit suggestions through SCRS

Submit A SCRS Report

- SCRS = Safety Concern Reporting System
- SCRS is for reporting and tracking:
 - Hazards & unsafe acts you can't fix yourself
 - Hazards & unsafe acts you can't get fixed
 - Suggestions for improving SHE protection
 - Other SHE-related concerns
- 3 ways to submit a report:
 - Electronically: go to SHE Website, pick 'File A Report', then click on SCRS, and follow the on-screen instructions (<https://msfcsma1.msfc.nasa.gov/dbwebs/apps/scrs/>)
 - Fill out & mail a hard copy report form (look for boxes on Center bulletin boards)
 - Make a phone call to 544-HELP, choose the Safety option, and give the report over the phone

What Happens to A SCRS Report

- You can report anonymously
- Report is tracked until it is officially closed
- Action is assigned to responsible organization
- You can check report status on the SCRS page
- Assignee logs action taken to address report, & recommends closure
- If report showed submitter's e-mail address, notification of planned closure is sent
- Submitter can protest the decision to close
- Despite any protest, may still be approved, if:
 - All reasonably feasible actions were taken, AND
 - All regulatory requirements are met

Housekeeping Rules*

➔ MPG 8715.1, Appendix G, Minimum Housekeeping Guidelines:

- ❖ Keep area neat, clean, & orderly at all times. Limit materials, tools, & equipment out of normal storage places to those needed for operations.
- ❖ Arrange desks, tables, etc., so that electrical & telephone cords & outlets do not present a tripping hazard.
- ❖ Securely fasten shelves, cabinets, lockers, etc., to the floor or wall if a possibility of overturning exists.
- ❖ Storage of material shall not create a hazard. Bags, containers, bundles, etc., stored in tiers shall be stacked, blocked, interlocked, & limited in height so that they are stable & secure against sliding or collapsing.
- ❖ Storage of material on top of full-height file cabinets & lockers is not permitted.
- ❖ Furniture, equipment, supplies, or other substantial physical objects shall not be stored in required egress corridors & passageways serving six or more people, except in lobbies, recessed areas, or other spaces specifically designed for such purposes.
- ❖ If storage is directly below a sprinkler head, it shall be no closer than 18 inches.
- ❖ Areas that have cloth rags or paper towels saturated with combustible or flammable liquids will have a steel can with a self-closing lid & ventilated bottom (UL or FM approved).
- ❖ Computer rooms & areas that generate a large amount of paper will be provided with metal cans with self-extinguishing heads.
- ❖ Clean up areas at the end of each workday.
- ❖ Furnace rooms, boiler rooms, or equipment rooms shall not be used for storage.
- ❖ *Add your own, to suit the special character of your work area.*

*MPG 8715.1, 3.1.3, "For example, supervisors shall define and post housekeeping guidelines (see Appendix G for minimum housekeeping guidelines) in their area of responsibility to employees."

Material Safety Data Sheets

➤ Material Safety Data Sheets = MSDSs

- ❖ Tell you how to use a chemical product safely.
- ❖ Tell medical personnel how to treat you, if you should get overexposed to the chemical.

➤ Each employee should be able to:

- ❖ Find the right MSDS for any chemical product in their work area.
- ❖ Find it fast enough to be able to give it to emergency medical responders.
- ❖ Be able to find the first aid instructions printed on the MSDS.
- ❖ Be able to do this 7 days a week, 24 hours a day, with or without their supervisor.

➤ How to find MSFC Material Safety Data Sheets:

- ❖ Go to the SHE Website.
- ❖ Click on 'Training, Mishaps, Close Calls & Information'.
- ❖ Click on 'Material Safety Data Sheet (MSDS)'.
- ❖ Click on 'Marshall Space Flight Center - MSDS Master Listing'.
- ❖ Enter the Manufacturer Name, Chemical Name, OR MSDS #.
- ❖ Click on 'Search'. *Pick some chemicals from your area, and try it!*

http://eemo.msfc.nasa.gov/environmental/haz_mat/msds_search.htm

Recycling & Energy Conservation

- **Reduction of Solid Waste at MSFC by 35%, by 2010**
 - ❖ Rethink → Reduce → Reuse → Recycle.
 - ❖ Recycle office paper, aluminum cans, cardboard, & toner cartridges. See other materials at <http://eemo.msfc.nasa.gov/environmental/recycle/current/current.shtm>.
- **Affirmative Procurement**
 - ❖ Buy environmentally preferable products (contain recycled material).
 - ❖ Construction
 - ❖ Landscaping
 - ❖ Nonpaper office
 - ❖ Paper
 - ❖ Park and recreation
 - ❖ Transportation
 - ❖ Vehicular
 - ❖ Miscellaneous
- **Reduce energy and water consumption whenever possible**
 - ❖ Assure equipment & lights are turned off whenever safely possible.
 - ❖ Lights, desk lamps, radios, fans
 - ❖ Computers (non-servers), printers (non-network), computer peripherals
 - ❖ Copiers, and other nonessential, switchable, energy-using equipment
 - ❖ Unplug space heaters
 - ❖ Be as conservative here as you would if you were paying for it at home!

Fire Prevention Week, Oct. 6 - 12

2 More of These Incidents Have Occurred Since Original Version of This MSFC Safety Bulletin Was Published on 8/23/02!

What Happened?

An alert employee left an MSFC building, and noticed smoke issuing from the cigarette butt receptacle near the entrance. She grew concerned as the amount of smoke increased. Two custodians helped investigate the source of the excessive smoke.

What Caused This Incident?

A **smoldering paper napkin** was found inside the container. The fire was put out, preventing any damage that could have resulted.

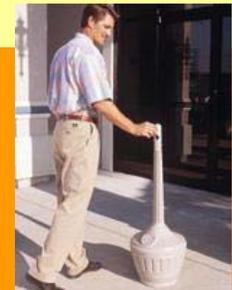
What Lessons Can We Learn?

- ➔ These containers are designed and labeled to collect cigarette butts **ONLY**.
- ➔ The design limits the oxygen that reaches the smoldering butts, and puts their fire out. This may not work for other types of burning trash.
- ➔ Other trash may burn at temperatures above the container design limits, causing containers to melt or ignite.
- ➔ Putting paper trash in these containers threatens fire safety for the whole building.



How Do We Prevent This From Happening Again?

- ▶ Never put anything in these containers except cigarette and cigar butts.
- ▶ Stop others from putting trash in these containers, and explain the fire danger to them.
- ▶ **READ** and **OBEY** container labels! (If the manufacturer pays to label their product, the message is one we need to know!)
- ▶ Use proper containers for paper waste -- usually just a few feet away, inside the building entrance.
- ▶ Don't use products for purposes that they weren't designed to serve -- you won't be protected by built-in safety features!



Recommended* Safety Day Activities

***To Be Completed As Time Permits**

**MSFC S&MA Office
Industrial Safety Department**



Recommended Safety Day Activities

- Encourage MSAT membership in each MSFC organization (slide 19 & handout)
- Encourage employees to identify 3 different ways they are or can be involved in their SHE Program (slide 20)
- Review the results of the 2002 PEP Survey, & develop plan to address items scored at or below '4' (slide 21)
- Learn to find MSFC mishap & close call information on the SHE Website, such as what happened, what caused them, lessons learned, & incident trends (slide 22)
- List specific SHE hazards likely to occur in your work area, to check during Supervisor Safety Visits (slide 23)
- Add a lesson learned to the *'It Could Happen To You!'* Database

The following pages will assist you in completing these activities.



Marshall Safety & Health Action Team (MSAT)

- MSAT is a volunteer, "grassroots" organization which enables all employees to become involved in promoting safety & health in the MSFC community.
- Civil service & contractor employees, & their unions, provide MSFC with an independent "bottoms up" approach to safety & health. They join to promote a safe & healthy work place & the attitudes we need to accomplish our work safely.
- MSAT provides a confidential forum where employees can discuss safety & health issues that impact working safely. MSAT:
 - ❖ Promotes safety and health training & information.
 - ❖ Promotes a safe work environment by providing inputs--
 - ❖ To safety & health requirements, &
 - ❖ To evaluate corrective actions resulting from accidents & close calls.
 - ❖ Evaluates & recommends appropriate emphasis to be placed on safety & health issues.
 - ❖ Interfaces with the Center's MTM, SHE Committee, & existing SHE programs, as needed.
- Members are dedicated people, who put their hearts into their work & set high standards for themselves, as they strive to raise the quality of the work environment for everyone at MSFC.
- Join by attending a meeting, Building 4200, Room P106 (10th Floor), at 10:00 AM every other Wednesday, or contact Helen Eddleman at 544-4130.
- Visit <http://msat.msfc.nasa.gov/>

You Can Be Involved in Your SHE Program

- ❑ Share *your* knowledge & experience -- join a SHE committee or ad hoc team.
- ❑ Watch for conditions that could harm *your* coworkers - get them fixed, & when you can't fix it, submit your concern through SCRS.
- ❑ Join your supervisor in doing a walk-through safety inspection of *your* work area.
- ❑ Inspect all tools & equipment to assure safe operating condition before *you* use them.
- ❑ Tag defective equipment out of service, to keep *your* coworkers from being injured, & put in a request for repair or replacement.
- ❑ Inspect housekeeping in *your* work area every day, & correct any potential problems that you notice - pay special attention to slip, trip, & fall hazards.
- ❑ Check safety & hazard warning signs in *your* work area often -- are they visible, legible, & still appropriate for the jobs performed there?
- ❑ Introduce *yourself* to your Building Manager -- offer to help resolve any SHE concerns that relate to your work area and/or expertise.
- ❑ Find 2 ways to quickly get outdoors from *your* work area, & check often to be sure they don't get blocked.
- ❑ Encourage positive attitudes toward safety in *your* work area -- volunteer to be a SHE Mascot or Mascot Helper.
- ❑ Form Work Area Inspection Teams with your coworkers, & inspect areas where *you* don't normally work - you'll see things your coworkers don't even notice!
- ❑ Help develop Job Hazard Analyses (JHAs) for the tasks, processes, & operations involved in *your* job -- share your knowledge of how accidents could happen, & the safe work practices that should be followed.
- ❑ Volunteer to lead a safety meeting discussion on how to avoid injury in *your* work area.
- ❑ Imagine ways to make SHE Program activities more useful & worthwhile -- submit *your* suggestions to the IDEAS Program.
- ❑ Regularly check storage areas for chemicals & hazardous waste in *your* work area -- make sure the materials are safely & properly stored, & the exposure control methods used are effective.
- ❑ Use a safety meeting to outline the SHE information that should be shared with a new employee in *your* work area, then identify which things visitors need to know - use it as a Work Area SHE Orientation that could be given by any team member.
- ❑ Dedicate one or more safety meetings to assessing the hazards in *your* work area --select effective personal protective equipment (PPE), determine the rules for when it must be used, & write it all down.
- ❑ When something changes in your work area (facility layout, machines or equipment, materials or chemicals, processes or operations, etc.), help your supervisor determine if *your* SHE Program documents need updating - JHAs, PPE assessment, operating procedures, hazard warning signs, exposure monitoring & medical surveillance, inspection procedures, training requirements, & so on.

2002 PEP Survey: Do Something About It!

➤ PEP Survey Results

❖ Posted at <https://msfcsma3.msfc.nasa.gov/PEP/index.html>

- 'Team Totals' = Responses for entire MSFC Team
- 'Civil Service Totals'
- 'Contractor Only Totals'
- Organization results listed by MSFC Office Code

❖ Scores of '4' or below require documented corrective action plan

- Score '5' = Outstanding SHE Program, comprehensive & successful in reducing workplace hazards
- Score '4' = Superior SHE Program, with planned strategy for continuous improvement & goal of achieving the outstanding program level
- Score '3' = Basic SHE Program, at minimally acceptable level of compliance with OSHA regulations for safe and healthful workplaces
- Score '2' = Developmental SHE Program
- Score '1' = No SHE Program, or an ineffective program

➤ Corrective Action

❖ See guidance in Introduction on website.

❖ Develop a plan to address each survey item that your work group scored at or below '4'.

MSFC Mishap & Close Call Information

➤ How Do You Find It?

- ❖ Go to SHE Website: <http://inside.msfc.nasa.gov/SHE/>
- ❖ Click on 'Training, Mishaps, Close Calls, and Information' to see pop-up menu, then choose:
 - ❖ *'Mishaps By Building Number'*
 - Click on the area of the Center you're interested in - a close up view of the area appears
 - Click on the building you're interested in - a listing of lost time mishaps, injuries & close calls appears
 - ❖ *'Personnel Mishaps/Close Call Listing'*
 - Listing of all injuries, close calls, & property damage incidents by date, with most recent first
 - ❖ *'Current Safety Metrics'*
 - Presentation on Center SHE performance metrics, as given to the Marshall Team Meeting (MTM)
 - Updated each month, to provide information on the previous month
 - Includes information on mishaps & close calls, and several other areas of SHE performance

➤ See also...

- ❖ *'Lessons Learned'* on SHE Website under 'Training, Mishaps, Close Calls, and Information'
 - Lessons learned from mishaps, incidents, & close calls from all of NASA
- ❖ *'It Could Happen To You'* on SHE Website under 'File A Report, Ask A Question, or Voice A Concern'
 - Lessons learned from non-work-related mishaps, incidents, & close calls
 - Read stories reported by others, or *Add One Of Your Own!*
- ❖ *'Report A Mishap or Close Call'* on SHE Website under 'File A Report, Ask A Question, or Voice A Concern'

Work Area Hazards & Inspections

➤ Supervisor Safety Visits

- ❖ A walk-through of work areas, observing employees performing tasks or assignments to identify safe & unsafe acts, & inspecting the facility & contents therein for safety & health hazards.
 - Checklists help to assure that the inspection doesn't miss significant items, & serve as a record
- ❖ Supervisor's Safety Checklist (MSFC Form 4286)
 - <http://starbase.msfc.nasa.gov:8000/forms/forms.taf>
 - Checklist to remind of 'generic' hazards that could be found in any work area
- ❖ Supplemental Checklists Available
 - Go to SHE Website, click on 'Training, Mishaps, Close Calls, and Information' to see popup menu
 - Click on 'Safety Checklists', and a list of specific checklists for different types of work areas and operations appears - click on a link to print out those that apply to your work area
- ❖ Make An Inspection Checklist to Fit Your Work Area Exactly
 - Use the Supervisor's Safety Checklist, & the checklists on the SHE Website as a starting point for ideas
 - Make a list of all hazardous conditions that might occur in your work area
 - Include things that should be checked for at least once every month
 - Include things that only happen if someone doesn't complete their assigned functions
- ❖ Give it to your supervisor to use during the monthly Supervisor Safety Visits
 - Use it to do your own pre-inspection before your supervisor inspects your work area