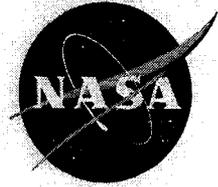


National Aeronautics and
Space Administration

George C. Marshall Space Flight Center
Marshall Space Flight Center, AL 35812



July 1, 2003

Reply to Attn of:

QS50 (03-47)

TO: Distribution

FROM: QS50/David J. Spacek

SUBJECT: Minutes of the MSFC Safety, Health, and Environmental Committee
Meeting – May 28, 2003

The Safety, Health, and Environmental (SHE) Committee met at 2:00 p.m. on Wednesday, May 28, 2003, in Building 4203, Conference Room 1201. The attendance list is maintained on file in the Industrial Safety Department (4202/307). The agenda for the meeting is attached as Enclosure 1.

Opening Remarks (Nance Jo Ogozalek/Chairperson)

Nance Jo welcomed everyone and expressed appreciation to all for attending.

Safety Moment (Dennis Davis/QS50)

Dennis discussed a recent accident that occurred at a local non-MSFC related business. An employee was thrown from the bucket of a lift truck when it was hit by another vehicle, falling 40 feet to his death. The employee, who had only been on the job for two days, was wearing a harness, but it was not attached. Dennis noted that several new employees would be on the job this summer. He used this incident to emphasize that current employees should always set an example for new employees by following proper safety procedures.

Previous Meeting Minutes (Nance Jo Ogozalek/ED33)

The minutes for the April 16, 2003 meeting were approved.

Open Actions (Dennis Davis/QS50)

Dennis reviewed the open actions. A suggested change to load limit markings for storage above rooms was read – Dennis Davis/QS50 is working with the Facilities Engineering Department before finalizing the statement. The chart presentation is attached as Enclosure 2.

Non-voting Sub-Committee/Team Reports

Environmental Excellence (Sharon Scroggins/AD10)

No report

Emergency Preparedness (Cathy Miller/AD60)

No report; however, related topics included: 1) Jim Carter/AD01 reported a recent situation where Army guards left Gate 9 (Rideout Road) unprotected for approximately 30 minutes during a tornado warning. While personal safety is a first concern, the gate was not closed in accordance with the Army emergency procedures. Jim also reported that the Customer and Employee Relations Directorate/CD01 are revising the 4-HELP recorded telephone message regarding employee advisory information. 2) Jimmy Guarin/AD22 commented that engineers from Texas Tech are currently inspecting the protective areas in the buildings at MSFC. Since Texas Tech performed the original study, they were asked to update to include configuration changes and new facilities.

Training (Pat Schultz/CD20)

No report

Communications (Norma Horton/OS50)

Norma reported that the Safety Topic for June is "Back Injury Prevention." A 20-minute video on the subject will be available for checkout, and will be shown at selected times on Centerwide television. Viewing of this video will be mandatory.

Marshall Safety Action Team (MSAT) (Glenn Owens/LB&B)

Glenn provided an update of MSAT activities for May, which included the following:

- Continuing of Safety Jeopardy
- Awards were given for reporting close calls (names can be found on Honor Board in Building 4203 lobby)
- Supported the Student Launch Initiative twice
- Safety back drop laminated photos
- Supported the Seat Belt Awareness Day and Child Car Seat Initiative

HAZOPS Ad Hoc Team (Nance Jo Ogozalek/ED33)

Nance Jo reported that new members are needed to help the HAZOPS Ad Hoc Team.

Contractor Safety Forum (Phil Robbins/CSC)

Phil reported that questions have been raised about MSFC compared to JSC in regards to the recent fatality at JSC. Phil suggested that MSFC look at root causes and assure we do not have a repeat of the incident. T.D. Johnson/Lockout/Tagout Subcommittee Chairperson reviewed the mishap with the attendees. The chart presentation, used by Pete Allen/AD60 for his briefing at the Marshall Team Meeting (MTM) on May 27, 2003, is attached as Enclosure 3.

Industrial Safety Report (Dennis Davis/QS50)

Dennis reported on the Industrial Safety Metrics. The chart presentation is attached as Enclosure 4.

Review New Open Actions

No new actions were reported.

New Business

Dave Spacek reported that the Industrial Safety Department (ISD) is planning to mark off an area with a green border on selected bulletin boards throughout the Center. The space will be used and maintained by the ISD for posting SHE related items.

A visitor to the meeting reported that IFMP employees are concerned about the gate guards at Gate 7 who have to stand outside during rain and lightning. Jim Carter/AD01 responded by stating that MSFC is putting together funds to assist in providing a shelter.

The next SHE Committee Meeting will be a working meeting scheduled for Wednesday, June 11, 2003, at 2:00 p.m. in Building 4202, Conference Room 326A.



for David J. Spacek
Manager
Industrial Safety Department

4 Enclosures

Distribution:

SHE Committee Members
SHE Web Page

cc:

CD20/P. Schultz
CSC/P. Robbins
DE01/A. Roth
UP10/K. Cornett
HEI/R. Smith

SHE COMMITTEE AGENDA
Building 4203, Conference Room 1201
2:00 pm, Wednesday, May 28, 2003

Open Meeting (Nance Jo Ogozalek/Chairperson)

Safety Moment – (Dennis Davis/QS50)

Management Mentor (Axel Roth/DE01)

Previous Meeting Minutes (Nance Jo Ogozalek)

Open Actions (Dennis Davis/QS50)

SHE Organization Reports

- **Industrial Safety Report (Dennis Davis)**

Non-Voting Sub-Committee/Team Reports (as time allows):

- **Environmental Excellence (Sharon Scroggins/AD10)**
- **Emergency Preparedness (Cathy Miller/AD60)**
- **Training (Pat Schultz/CD20)**
- **Communications (Norma Horton/QS50)**
- **MSAT (Glenn Owens/LB&B)**

Directorates / Organizations without Hazardous Operations (as time allows):

- **Provide status of Program Improvement Target Actions**
- **Open Forum for SHE topics**

New Business - Open Floor (Nance Jo Ogozalek)

Review New Open Actions (Recorder)

NEXT MEETING – Voting Members Working Meeting, June 11, 2003, 2:00 pm
Building 4202/Conference Room 326A

SHE Committee Open Actions May 28, 2003

ACTION NO.	ISSUE/CONCERN	POINT OF CONTACT	ACTIONEE	FINAL PRODUCT	DATE OPEN
SHE-02-020	Phil Robbins presented the SHE Program Improvements Action Plan	Nance Jo Ogozalek/ED33	Actionees as Identified in Plan	Review the SHE Program Improvement Plan and provide an ECD for each assigned action.	11-13-02
SHE-02-023	Gaines Watts presented proposed restriction-guidelines for test area visitors. Some committee members felt this should be part of a Centerwide policy.	Nance Jo Ogozalek/ED33	Dave Spacek/QS50	Investigate the need for, and develop as required Centerwide guidelines for visitor access to hazardous areas.	11-26-02
SHE-03-007	Steve Cushman/AD35 suggested a checklist be developed for supervisors to help them identify the root cause of mishaps	Nance Jo Ogozalek/ED33	MSAT	Develop a checklist or other tools to help supervisors identify root causes of mishaps.	04-02-03
SHE-03-010	An attendee stated that they wished the environmental health training courses listed on the SHE page had a synopsis like others listed.	Nance Jo Ogozalek/ED33	David Thaxton/AD60 & Farley Davis/AD10	Provide a synopsis of each environmental and environmental-health training course listed on the SHE Web Page.	04-30-03
SHE 03-011	Dennis Davis demonstrated the PBMA collaboration web based system	Nance Jo Ogozalek/ED33	Dennis Davis/ QS50	Send out invitations to voting members to join the PBMA website.	05-14-03
SHE 03-012	Steve Cushman reported that many of our safety videos at 4207 are out of date.	Nance Jo Ogozalek/ED33	Judy Milburn/QS50	Review the safety videos currently stored in 4207 and move those that are still current to the basement of 4200 so that all videos will be stored in the same place.	05-14-03
SHE 03-013	Kyle Daniel reported that our instruction did not provide clear testing requirements for such items as floor jacks.	Nance Jo Ogozalek/ED33	Kyle Daniel/QS50	Prepare a master list of all types of lifting equipment with the required testing requirements of each.	05-14-03



MIB Findings
For The JSC
Building 37 Mishap

Pete Allen
Chairman, MIB
May 2003

JSC Bldg. 37 Fatality Mishap Investigation Board Report



Agenda:

- ***Mishap Description***
- ***Dominant Root Cause***
- ***Other Findings***
- ***Observations***
- ***Conclusion***

JSC Bldg. 37 Fatality

Mishap Investigation Board Report



Mishap Description:

- *Journeyman Electrician came in contact with an energized electrical circuit, while relocating an emergency generator, resulting in his electrocution and death*
- *No attempt was made to lock and tag out circuits*
- *Circuit had been tested by foreman at beginning of day and assumed de-energized*
 - *Foreman's voltage check yielded faulty results since painted conduit was used for ground reference*
- *Apprentice working with Journeyman Electrician was electrically shocked by circuit a short time before the electrician's electrocution*
 - *Journeyman and Apprentice did not report circuit being energized and elected to continue work with circuit "hot"*
 - *No "hot work permit" was sought*
 - *No PPE was used*

JSC Bldg. 37 Fatality

Mishap Investigation Board Report



Dominant Root Cause of Accident:

“The electrician’s company failed to implement and enforce their company safety program as defined in their Safety & Health Plan submitted to NASA, resulting in a lax safety culture. This lax safety culture supported the electrician in feeling comfortable working on an energized electrical circuit without the proper PPE, which he ultimately contacted resulting in his electrocution.”

JSC Bldg. 37 Fatality

Mishap Investigation Board Report



Other Findings:

- *It was common practice for electricians at this company to work on energized circuits without proper PPE or “hot work permits” – risk was considered acceptable*
- *The company had adequate safety policies and procedures documented but implementation was weak or nonexistent*
- *The circuits were not properly locked and tagged out at the beginning of the job*
- *The foreman improperly checked the voltage giving a false sense of security that the circuit was de-energized*
- *The company failed to develop and submit a “point-to-point” schematic of the system before beginning work as required by contract*

JSC Bldg. 37 Fatality

Mishap Investigation Board Report



Other Findings (cont):

- *The company failed to submit a Job Hazard List prior to starting the job as required by contract*
- *A sense of urgency existed at the job site (possibly contributing to the improper voltage check by the foreman and the failure to notify him when it was discovered the circuits were energized)*
- *Junction box where accident occurred was low to ground and required squatting or kneeling on ground to work in it*

JSC Bldg. 37 Fatality

Mishap Investigation Board Report



Observations:

- *The company's lock out – tag out procedures were out of date*
- *NASA/JSC representatives on the site that day did not question the energized status of system*
- *At NASA/JSC, construction contractors are considered “transient” and not held to the same standards as “permanent” contractors*
- *NASA/JSC delegated oversight and inspection processes lacked adequate rigor*
- *NASA/JSC's configuration management of facilities drawings was inadequate*
- *The electrician was smoking on the job at the time of the accident*
- *Drawings provided to the contractor did not contain adequate information for the contractor to determine how to isolate the systems*

JSC Bldg. 37 Fatality

Mishap Investigation Board Report



Conclusion:

- *This event was very avoidable*
- *While this event occurred with an electrical circuit, any energized system could have yielded the same results*
- *Look for trends*
- *Understand Agency/OSHA policy/direction*
- *Training is critical*
- ***MOST OF ALL*** – *assure safety policies, procedures, rules and regulations are followed explicitly!*



MSFC Safety Data for FY03

(Current as of May 28, 2003)

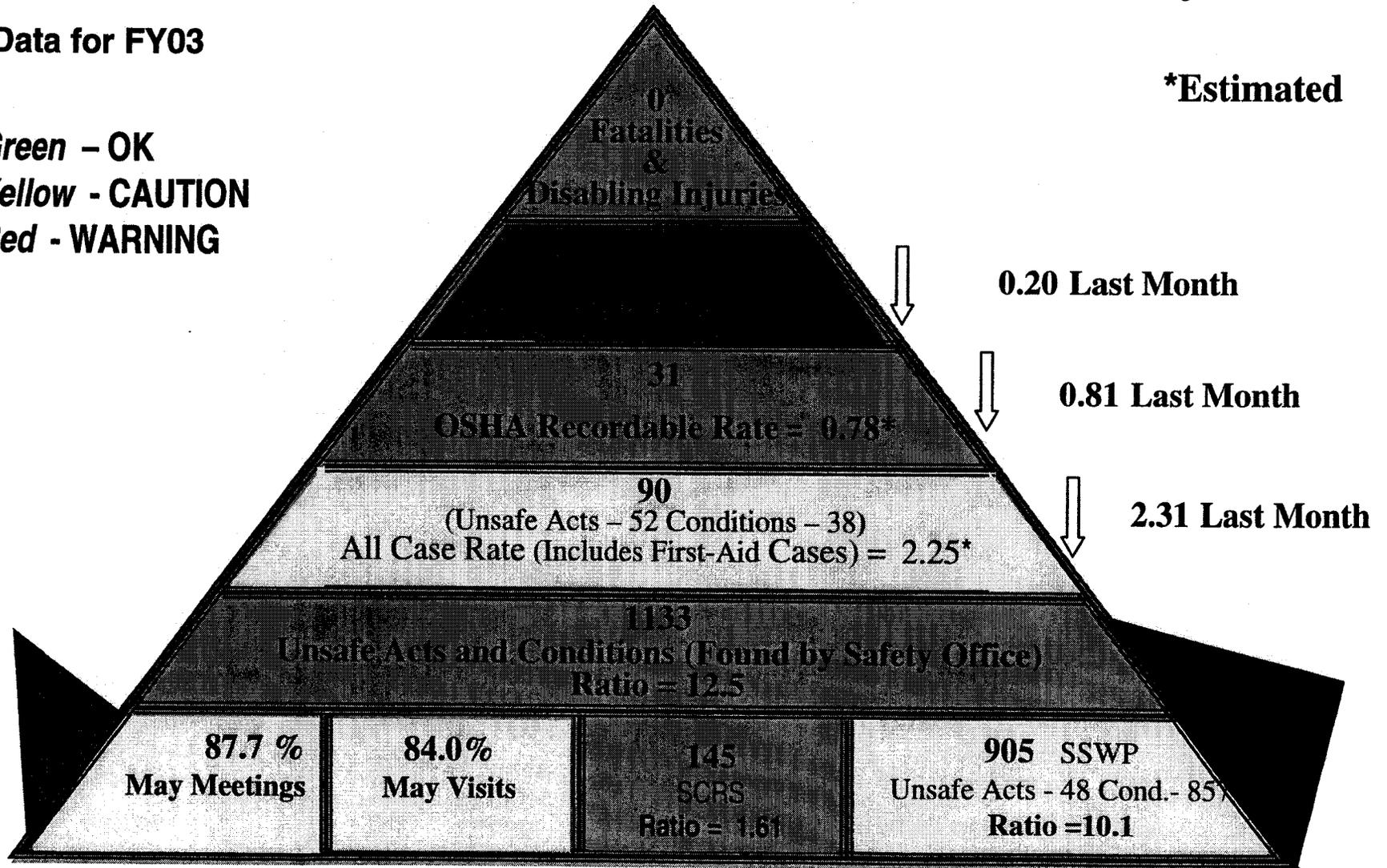
- 
- **Personnel Safety Pyramid**
 - **Leading Indicators**
 - **May Safety Meetings/Visits**
 - **SCRS Report**
 - **Trailing Indicators**
 - **OSHA Recordable Rates by Organization**
 - **FY03 Lost Time Mishaps**
 - **IHOPS Update**
- 

MSFC Team Metric - Personnel Safety

Data for FY03

Green - OK
Yellow - CAUTION
Red - WARNING

***Estimated**



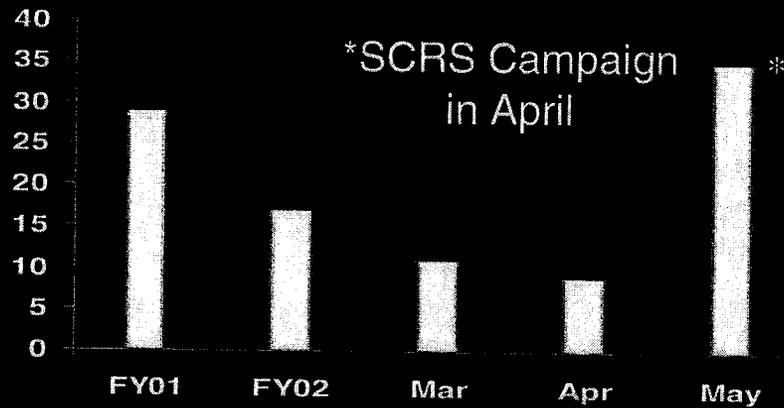


Corrective Actions for Red/Yellow Pyramid Metrics

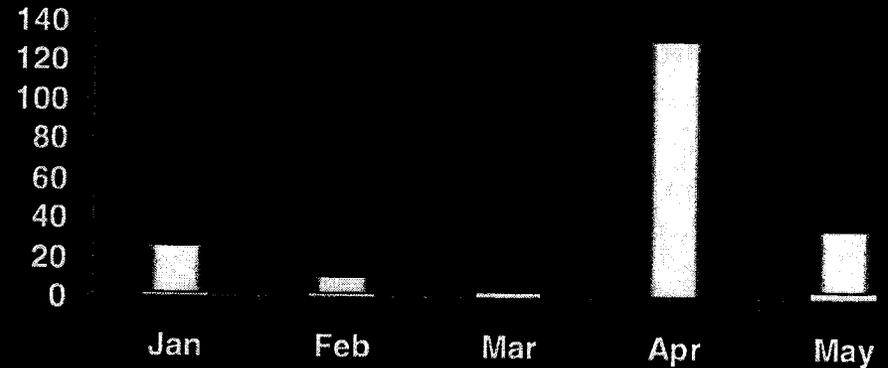
- **Lost Time Rate & All Case Rate**
 - “Back Injury Prevention” campaign upcoming in June
 - WERG Subcommittee assessing S-T-F incidents
 - Completed “Safety Concerns Reporting” campaign – mandatory safety topic for April
 - Umbrella bags/stands distributed across Center
 - Continuing implementation of SHE Program corrective actions identified in past assessments
- **Ratio of SSWP Findings**
 - Management stress importance of UC/UA identification and reporting to line supervision

Team Metrics - Leading Indicators (5-28-03)

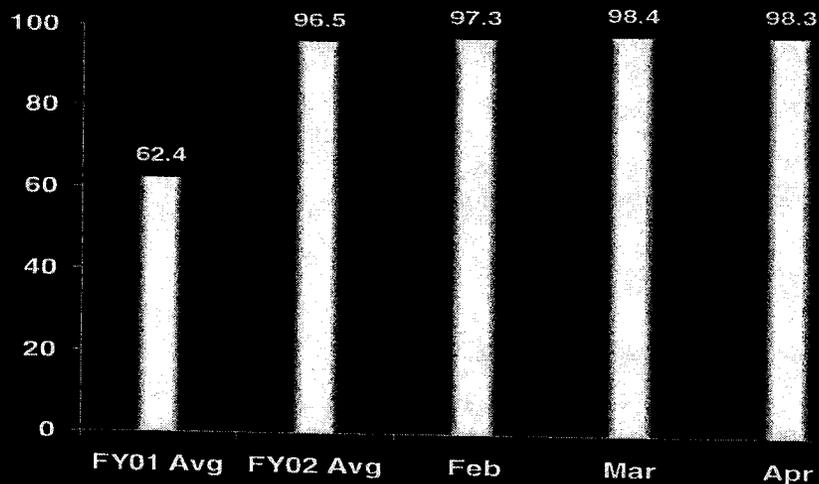
SCRS Submittals



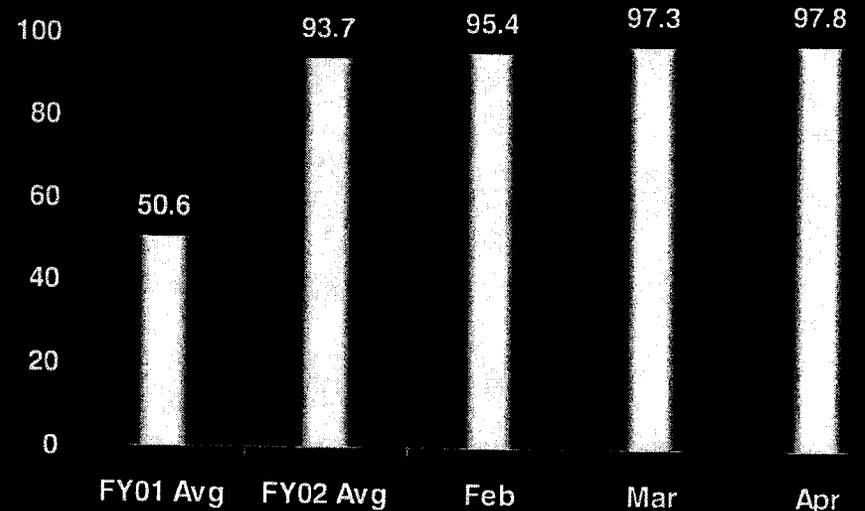
Late Corrective Actions



Supv. Safety Mtgs - % Compl.



Supv. Safety Visits - % Compl.





March Safety Meetings and Visits (05-28-03)

HONOR ROLL - 100% both Meetings & Visits

LS (18)

SD (18)

MP (18)

OS (17)

(Consecutive Months on Honor Roll)

HAZTRAK Finding Status (05-28-03)

AREA	2003	Open Findings	Abatement Plans	Late Last Month	Late
AD01	3	2	0	0	1
AD10	0	0	0	0	0
AD20	633	130	81	36	13
AD30	12	0	0	0	0
AD40	23	1	1	0	0
AD50	1	0	0	0	0
CD	0	0	0	0	0
ED	153	20	8	2	4
FD	114	2	2	1	0
MP	0	0	0	0	0
NSSTC	111	93	80	91	13
RS	0	0	0	0	0
SD	49	3	3	0	0
TD	34	5	0	0	0
Total	1133	256	175	130	31

Terminology

Open Findings - Findings that have not been Closed.

Abatement Plans – Approved interim hazard controls in place until finding can be corrected

Late – Findings open > 45 days with no Abatement Plan submitted, or Abatement Plan ECD has passed.

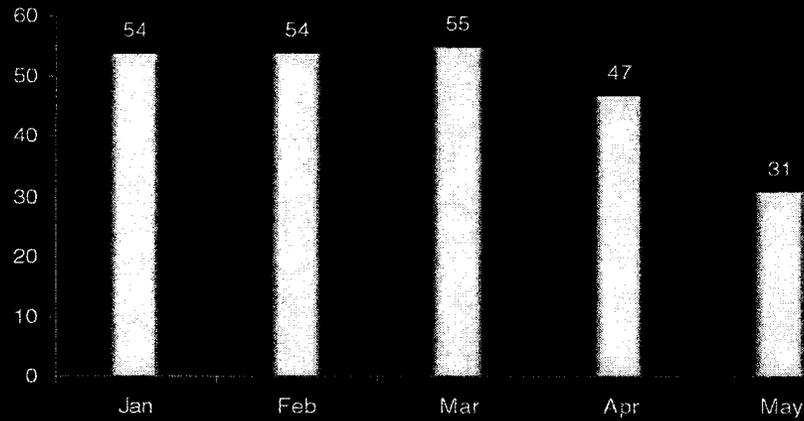
Mishaps - Corrective Action Closure (06/25/03)

Organization	Total	New	Total	New	Late last month	Late this month
AD01	17	3	24+	3+	4	4
CD01	1	0	+	0	0	0
ED01	4	1	3	1	0	0
FD01	2	1	2	2	0	1
LS01						
MP01						
OS01						
PS01						
QS01	1	0	0	0	0	0
RS01						
SD01	0	0	0	0	0	0
TD01	1	0	1	0	0	0
VS01						
UP01						
Totals:	26	5	30+	6+	4	5

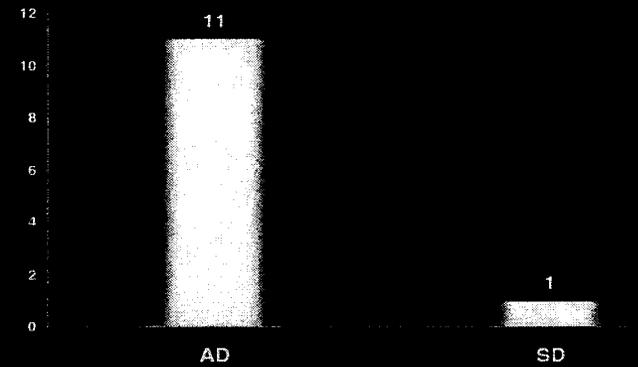
NOTE: Greater than 20% late goes Red

SCRS Metrics (05-28-03)

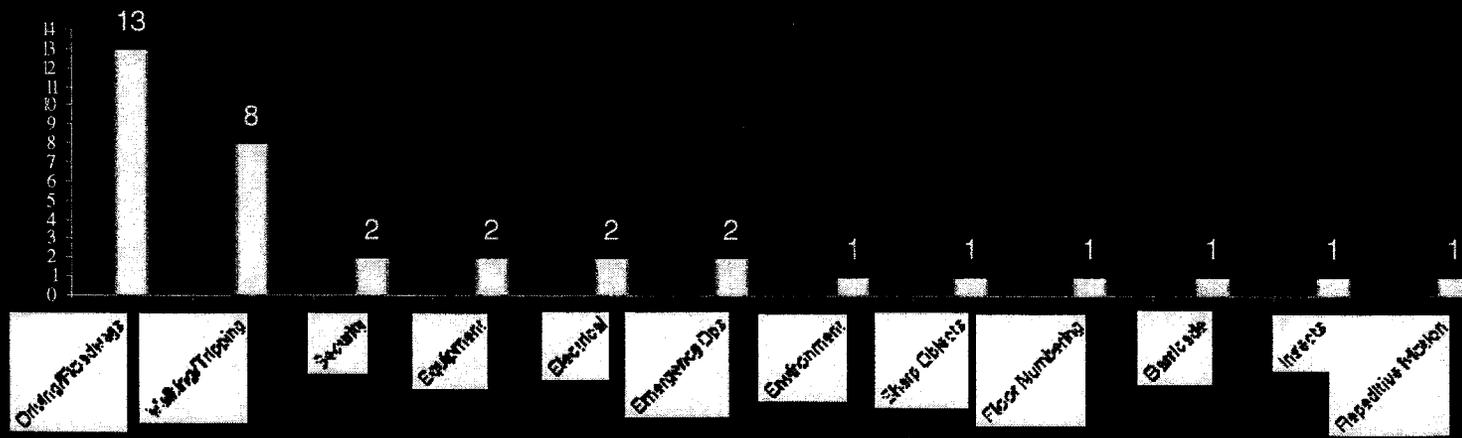
SCRS Open Over 60 Days



Late SCRS by Organization

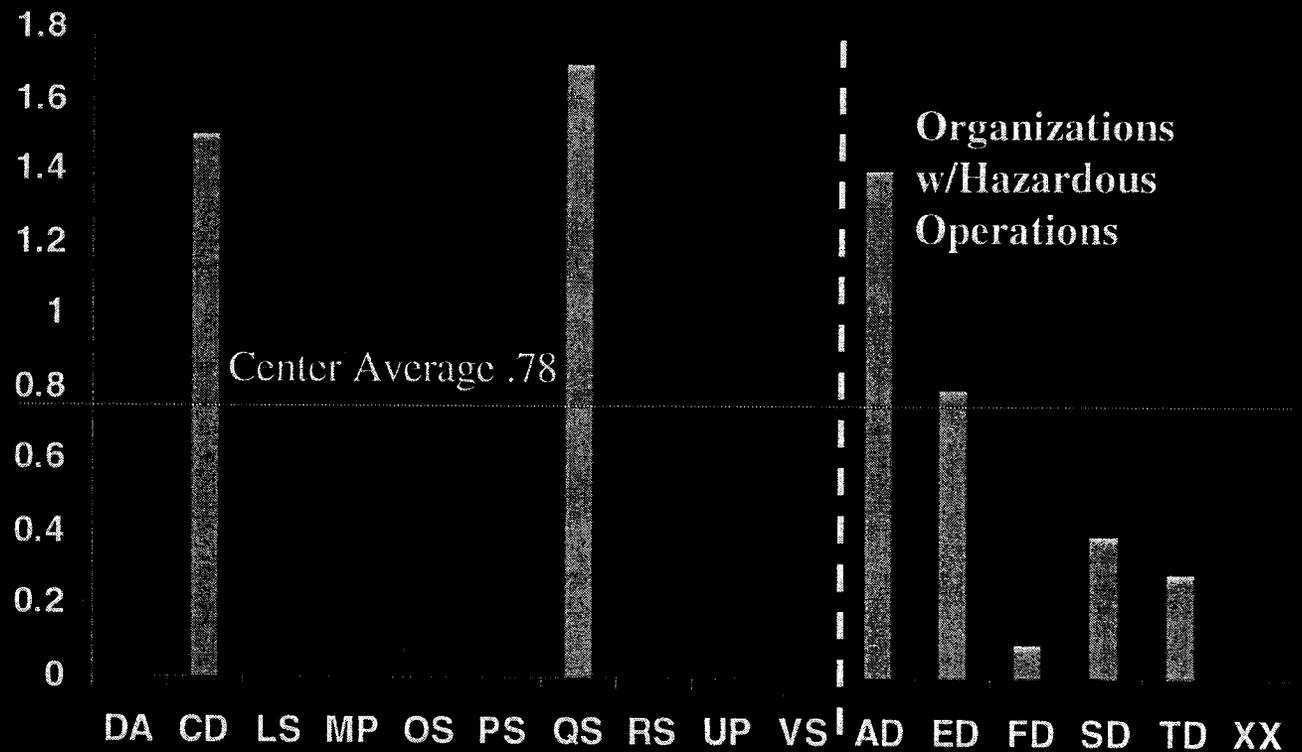


This Months SCRS by Category



FY03 OSHA Recordable Rates by Organization (Includes Contractors) (05-28-03)

DA	16,607
CD	388,909
LS	14,846
MP	297,131
OS	6,151
PS	169,727
QS	237,819
RS	171,419
UP	184,617
VS	32,126
AD	2,423,838
ED	1,521,714
FD	1,419,717
SD	474,149
TD	599,901



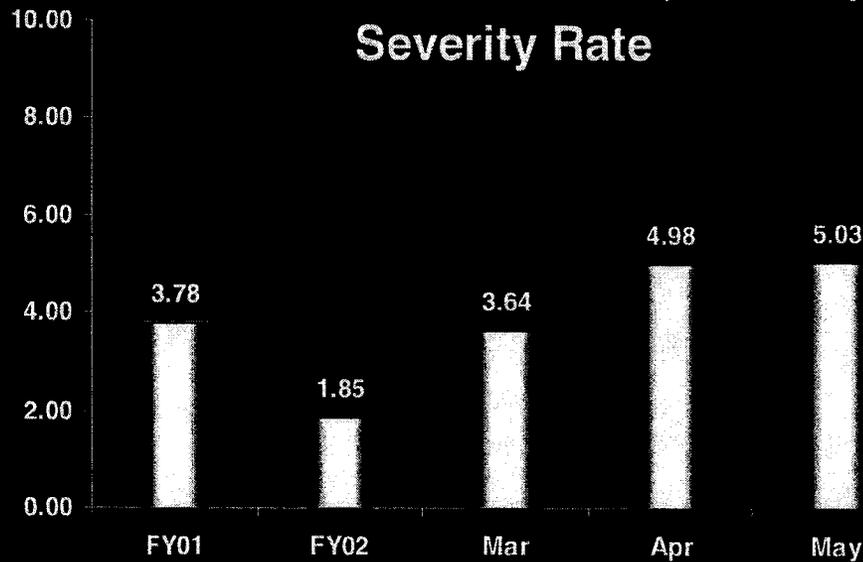
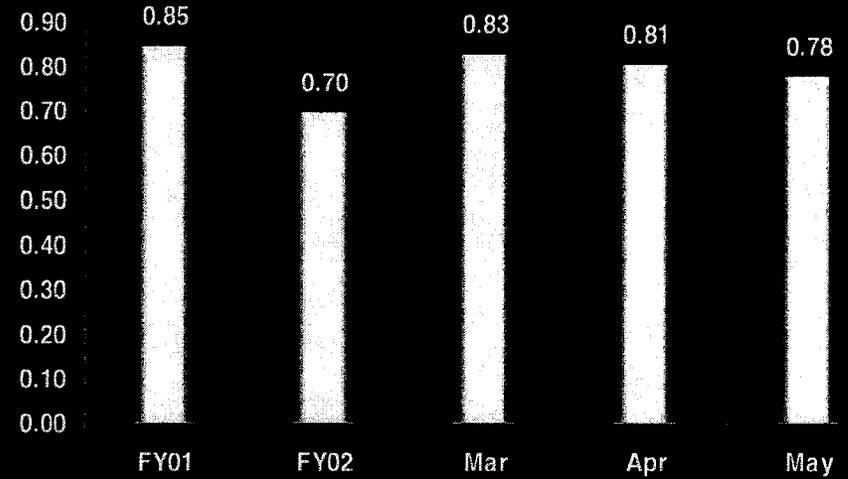
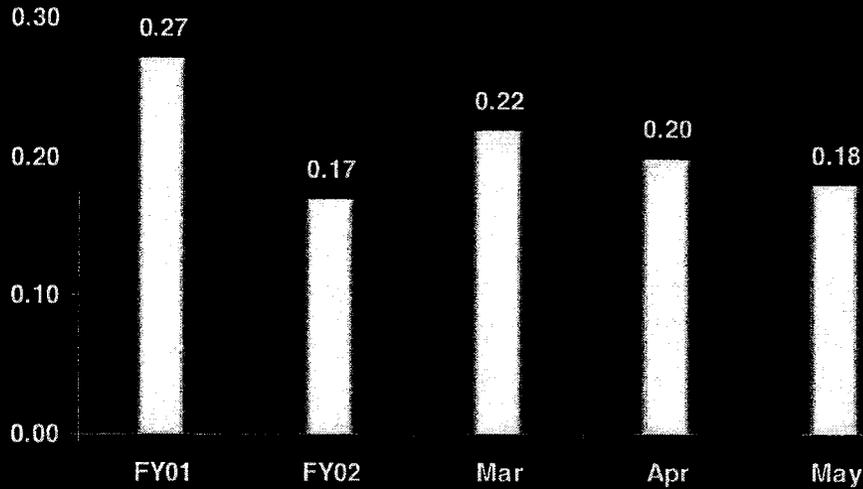
*Hours for Current Month Estimated

Team Metrics - Trailing Indicators (05-28-03)

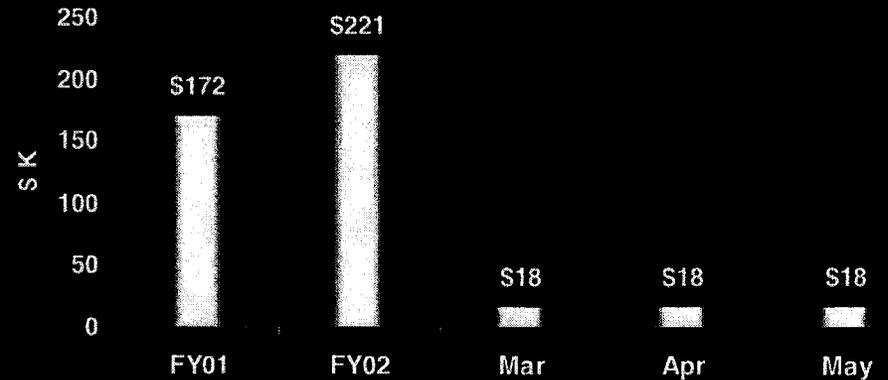
Lower is Better!

Lost-Time Rate

Recordable Rate

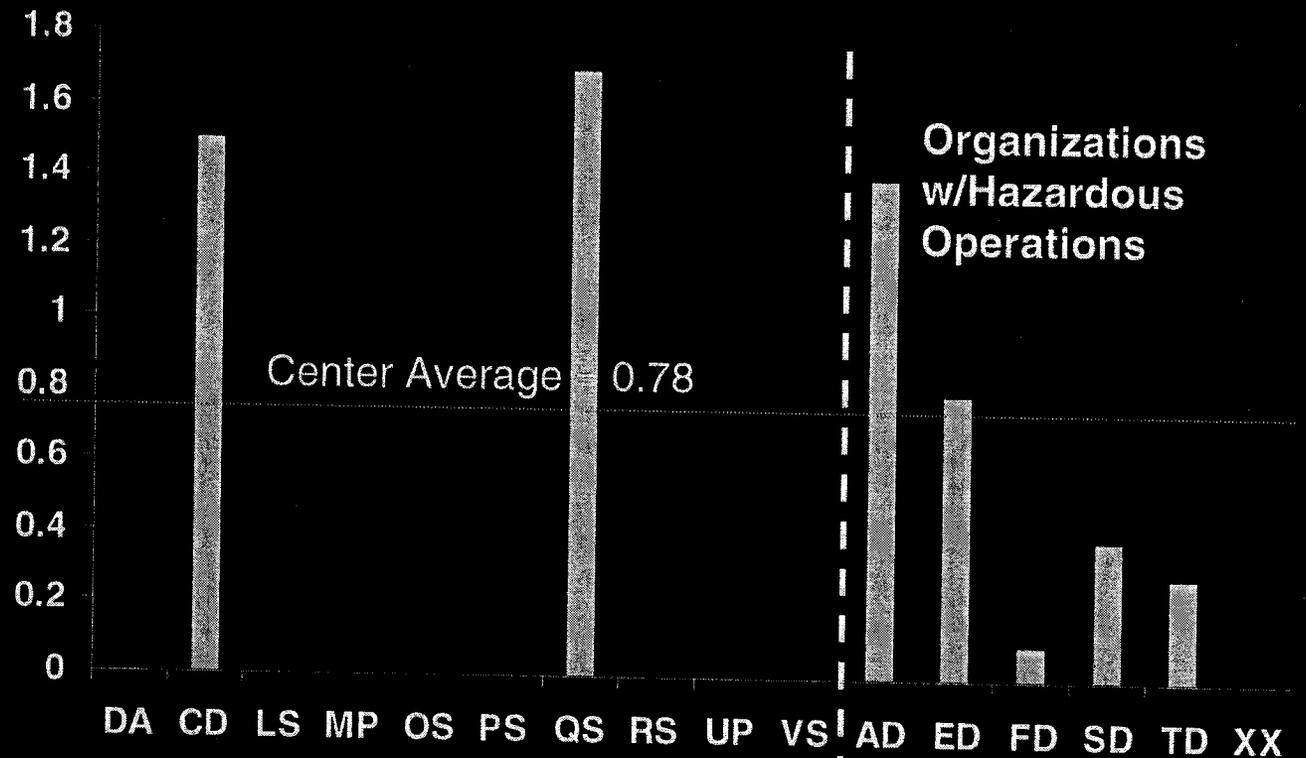


Equipment & Property Damage



FY03 OSHA Recordable Rates by Organization (Includes Contractors) (05-28-03)

DA	16,607
CD	388,909
LS	14,846
MP	297,131
OS	6,151
PS	169,727
QS	237,819
RS	171,419
UP	184,617
VS	32,126
AD	2,423,838
ED	1,521,714
FD	1,419,717
SD	474,149
TD	599,901



*Hours for Current Month Estimated

FY03 Lost-Time Mishaps (05-28-03)

New Lost-Time Cases Since Last Meeting

06/17/03 – Employee twisted ankle and fell on knee – Lost 1 day

06/09/03 – Employee strained back while repositioning item weighing 75 lbs. – Lost 4 days

03/11/03 – Employee's foot slipped, strained upper thigh – Lost 1 day

03/14/03 – Employee slipped and fell on freshly waxed floor, fractured arm – 101 lost days and counting

02/13/03 – Employee strained back when EWS control panel pulled loose from wall – Lost 1 day

02/06/03 – Employee slipped and fell in hallway, injured knee – Lost 32 days

11/01/02 – Employee strained lower back while lifting a box – Lost 1 day + 3 restricted days

10/28/02 – Employee slipped and fell off sidewalk, injuring right foot – Lost 2 days

10/24/02 – Employee tore tendon in arm while lifting sheet metal, required surgery – Lost 90 days

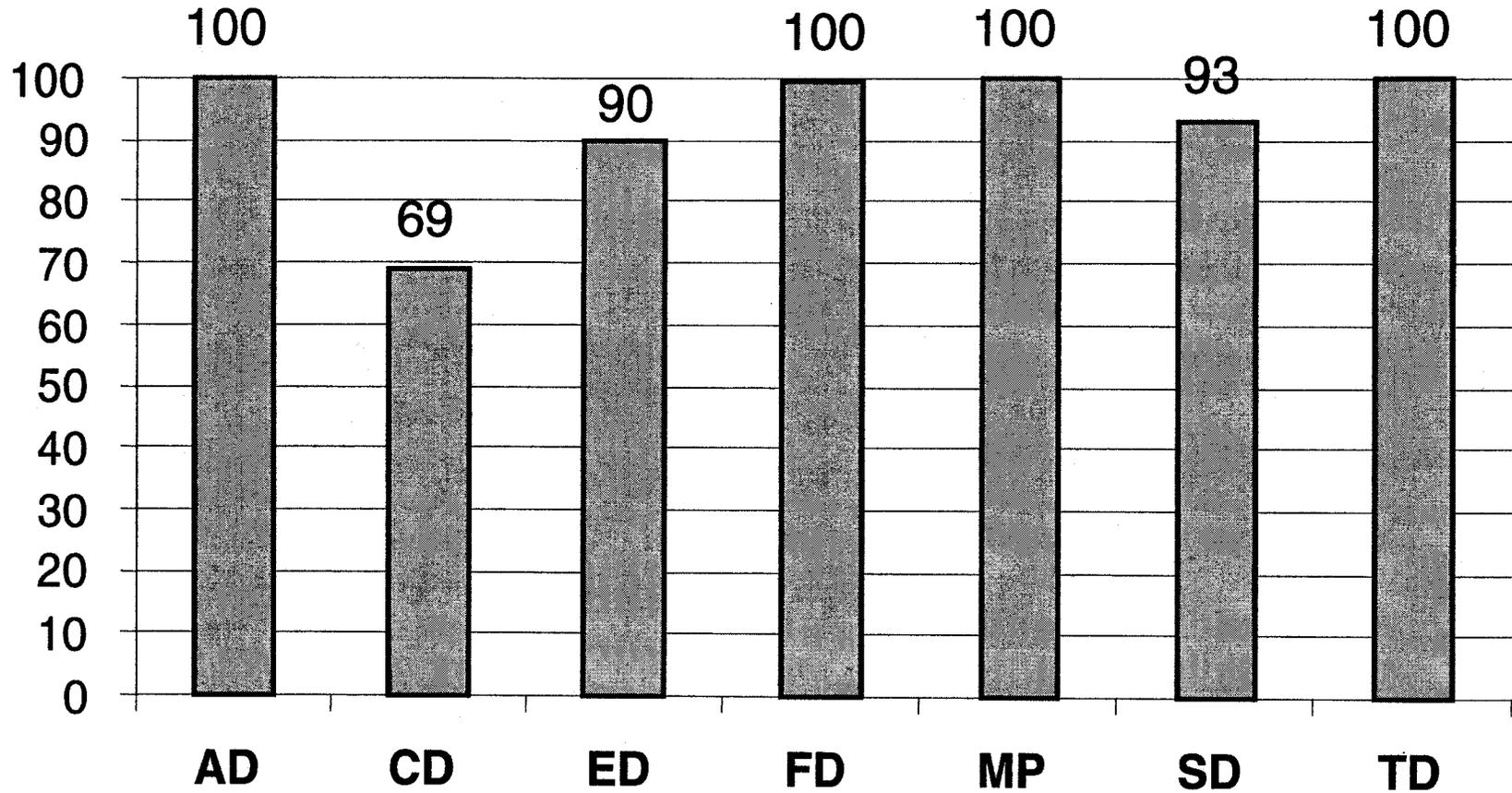
Slips/Trips/Falls

Back Injury

Other

IHOPS Update Status

% Complete



Percentages based on updates to last years input

Monthly Centerwide Reporting of Mishaps

Messages for May 8 - Message (Rich Text)

From: MSFC Activity Notice
 To: MSFC Activity Notice
 Subject: Messages for May 8

Pre-Ordered STS-107
<http://www1.msfc.n>
 May 5 Update for Dia
<http://www1.msfc.n>
 Safety Mishaps Repc
<https://msfcsma3.r>
 May 5 - Safety, Healt
<https://msfcsma3.r>
 Constructive Travel C
<http://www1.msfc.n>
 Safety Bulletin - Em
<http://www1.msfc.n>
 NASA's New Preside
<http://www1.msfc.n>
 Prohibited Personnel
<http://www1.msfc.n>
 Call for Nominations 1
<http://www1.msfc.n>
 NASA Headquarters
www.bulletinnews.c
 Voluntary Leave Tran
<http://www1.msfc.n>
 MSFC Vacancy Annt
<http://www1.msfc.n>
 NASA Office of the In
<http://www.hq.nasa>

Case #	Incident Date	Injury
2003-0073	5/1/2003	Injury
2003-0070	4/22/2003	Clo
2003-0072	4/18/2003	Clo
2003-0071	4/15/2003	Inju
2003-0069	3/21/2003	Inci

MSFC Safety Bulletin

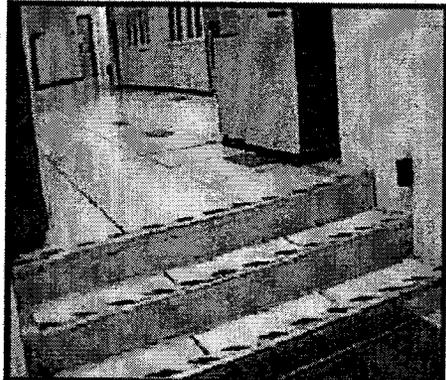
You Must Look, In Order To Know!

What Happened?

- ◆ An employee fell while descending steps, (shown at right) but fortunately did not suffer serious injury.
- ◆ The employee was looking at a document and talking to a co-worker when the accident occurred.

What Can Be Done?

- ◆ Avoid reading or other distracting activities while walking, especially when descending on stairs.
- ◆ Be especially attentive when you find yourself in a hurry!
- ◆ Respect every step (change in elevation) as capable of causing a painful fall & injury.
- ◆ The walking surface elevation change was not accentuated at the time of the incident. The caution markings were added after the incident, as a preventive action. Also hand rails have been ordered.



Request Access | Support Request/Feedback | Author | Curator - Kristie French | Owner - Amanda

10:34 AM