NIST Safety Metrics

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NIST Visiting Committee on Advanced Technology

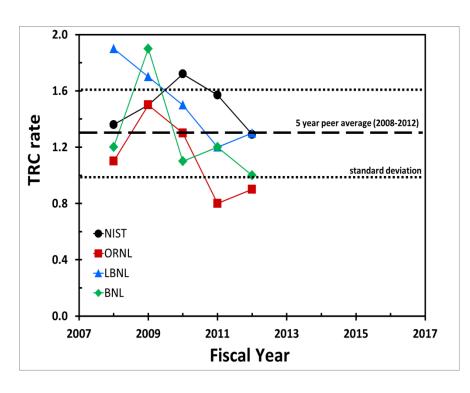
Gaithersburg, MD

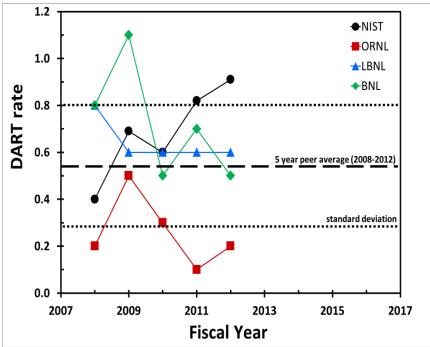
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NIST OSHA-Recordable Injury and Illness Incidence Rates

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13 Q1	
Total Recordable Cases (TRCs)									
TRC Rate	1.44	1.31	1.36	1.50	1.72	1.57	1.33	0.97	
Number of TRCs	35	32	34	39	46	42	35	6	
Lost-Time Cases									
DART Rate	0.94	0.61	0.40	0.69	0.69	0.82	0.91	0.65	
Number of Lost-Time Cases	23	15	10	18	16	22	24	4	

TRC and DART Rate Peer Comparisons





Injury Data for FY 2012 and FY 2013 Q1

OUs with atleast one injury report in IRIS	Number of "injury" incidents reported in IRIS	Number of "injury" incidents reported in IRIS which are OSHA recordables	% of "injury" incidents reported in IRIS which are OSHA recordables	% of all OSHA recordables by the OU	
00 - DO	2	1	50%	3%	
13 - MR	3	3	100%	9%	
15 - OSHE	4	1	25%	3%	
16 - OFRM	2	1	50%	3%	
17 - OWM	3	1	33%	3%	
18 - OISM	1	0	0%	0%	
19 - OFPM	32	16	50%	47%	
48 - HMEPP	2	0	0%	0%	
60 - LP	1	1	100%	3%	
61 - NCNR	11	3	27%	9%	
62 - CNST	1	0	0%	0%	
63 - MML	12	2	17%	6%	
68 - PML	11	3	27%	9%	
73 - EL	8	0	0%	0%	
77 - ITL	4	2	50%	6%	
Totals	97	34	35%		

Laboratory Programs (LP)

- 49% of injury incidents
- 32% of OSHA recordables

Management Resources (MR)

- 46% of injury incidents
- 65% of OSHA recordables

Goals

- For NIST, Laboratory Programs, and Management Resources
 - Smaller number of OSHA recordables in FY 2013 than FY 2012
 - Included in ADLP and ADMR performance plans
- For each OU
 - Better performance in one key OU-specific area in FY 2013 than FY 2012
 - Included in OU Director performance plans
- Additional actions
 - Identify the incidents contributing most to NIST's OSHA rates and take steps to reduce their occurrence
 - Discuss safety performance at monthly NIST leadership meetings

Initial Injury Data Analysis

- Event what led to the injury
- Part of body what body part/system was injured
- Nature of injury what happened to that body part/system
- Source of injury what "object" caused the injury

- 75% of all OSHA recordables due to these types of events
- Take actions to reduce the numbers of incidents in these categories across NIST
- Track and provide regular updates on progress

Event that led to injury		Number of "injury" incidents reported in IRIS for	% of "injury" incidents reported in IRIS for this	% of all OSHA recordables which	Event	General nature of injury as a result of the
	this type of event	this type of event which are OSHA recordables	type of event which are OSHA recordables	are due to this type of event	code	event
Slips, trips, and falls	23	9	39%	26%	4XXX	Fractures, sprains, cuts, bruises
Struck by	19	6	32%	18%	62XX	Contusions, lacerations, bruises
Struck against	11	4	36%	12%	63XX	Contusions, lacerations, bruises
Overexertion (pushing/pulling/turning)	6	4	67%	12%	71XX	Strains, sprains
Overexertion (bending/stepping/twisting)	8	3	38%	9%	73XX	Strains, sprains
Insect bite/sting	5	3	60%	9%	13XX	Reaction
Caught in or compressed	2	1	50%	3%	64X	Fractures, sprains, bruises
Chemical exposure	2	1	50%	3%	5544	Chemical burn, respiratory symptoms
Bacteria exposure	1	1	100%	3%	55	Unknown
Electrical shock	1	1	100%	3%	51XX	Electrical shock
Repetitive motion	1	1	100%	3%	72X	Sprain
Rubbed against	9	0	0%	0%	66X	Lacerations, bruises
Contact with	2	0	0%	0%	69	Abrasions, bruises
Thermal burn	2	0	0%	0%	533	Thermal burn
Cryogenic burn	2	0	0%	0%	534	Cryogenic burn
Needle stick	1	0	0%	0%	61	Puncture
Nanoparticle exposure	1	0	0%	0%	5548	Unknown
Pedestrian vehicular accident	1	0	0%	0%	24xx	Fracture
	97	34	35%			

Timeliness of Incident Reporting and Investigation

SELECTED IRIS METRICS	APRIL 2012	MAY 2012	JUNE 2012	JULY 2012	AUG 2012	SEPT 2012	OCT 2012	NOV 2012	DEC 2012	JAN 2013
Incidents Reported										
Number of incidents reported	21	14	15	11	15	13	23	10	8	8
Incident Investigations Reported										
Number of incident investigation reports submitted within 20 business days	2	1	2	0	5	2	6	2	2	NA
Backlog of outstanding incident investigation reports	0	14	25	33	29	36	56	54	44	50

Targets:

- Submit 75% of incident investigation reports within 20 business days
- Eliminate backlog

Future Plans

- Continue to develop and deploy the NIST safety management system
 - New metrics and data sources.
- Integrate performance measurement into system-level OSH planning and implementation