

Safety and Health Overview



Presentation to the Large Facilities Workshop 7 April 2008

***"Effective health and safety is not
'commonsense' but is based
on a common understanding of risks and how to
control them,
brought about through good management."
(HSE 1991)***

Ron McKinnon – Manager Safety, Gemini Observatory

Safety Initiatives



- Safety Leadership Team
- Safety Department Reorganization
- Gemini Safety and Health Management System
- Safety Standards
- Modern Safety Management
- Critical Task Identification
- Driver Training
- Ergonomics
- Lockout Project
- Chemical Training
- Scheduled inspections
- Achievements

Safety Initiatives



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- Achievements

- The Safety Leadership Team was formed on the 21st June 2007 and the objective of the Safety Leadership Team was agreed to as:

“The SLT is the leadership for the Gemini safety drive and showed commitment and involvement in safety and is the forum for setting safety objectives and approving the Gemini Safety System and Standards.”



Safety Department



Appointment of a Safety Manager

Alejandra Cortez – Safety Coordinator Gemini South

Peti Singletery – Safety Coordinator Gemini North

GETMAC Guide, Educate, Train, Motivate, Advise and Coordinate.



The Gemini Safety Team

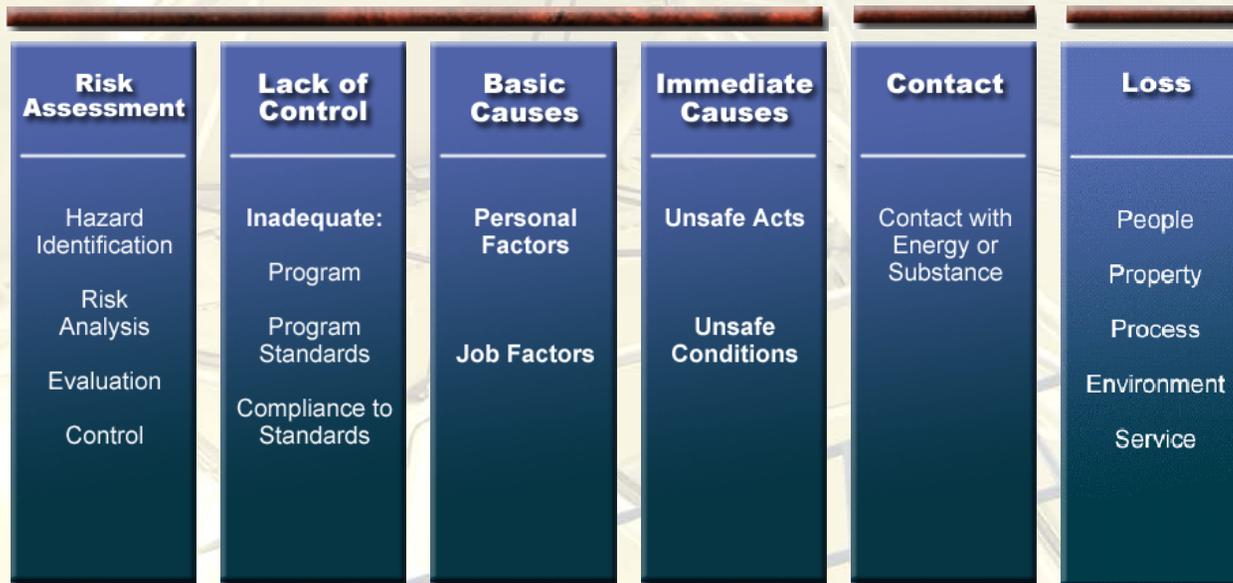
The Loss Causation Model



Pre - contact

Contact

Post - contact



The Loss Causation Model



“Effective safety and health management is not “common sense” but is based on a common understanding of risks and how to control them brought about through good management.”



Probability of Occurrence

High				
Med High				
Med				
Low				
	Low	Med. High	Med.	High

Unacceptable

- T – Terminate
- T- Tolerate
- T – Transfer
- T- Treat

Loss Potential Severity

Manageable

Acceptable



Gemini Safety and Health Management System



- Premises and Housekeeping
- Mechanical, Electrical and Personal Safeguarding
- Fire Protection and Prevention
- Accident Recording and Investigation
- Safety Organization

Safety Standards



“If you don’t know where you’re going, any road will take you there...”

- Standards are Measurable Management Performances
- Safety management involves setting standards of measurement and standards of responsibility
- Who will do What by When?
- Objective is 20 new Standards per year to a total of +70

Lockout / Tag out



From this.....

To this...

Modern Safety Management



- Eighty five% of Gemini employees attended the 8-hour Modern Safety Management training course.
- All Gemini employees at both sites will attend.
- Training in Critical Task Identification



- The Gemini driver safety-training project was launched at Gemini South.
- All Gemini vehicle drivers were exposed to a full-day practical driving lesson including skid control exercises.
- The project was launched at Hilo in July and all employees have completed the course.
- GPS systems have been fitted to all vehicles to monitor driving habits.



Chile Road Speed Limits (Kilometers per Hour)

Km/hr	110%	115%	120%	125%	130%	135%	140%	145%	150%	160%	170%	180%
30	33	35	36	38	39	41	42	44	45	48	51	54
40	44	46	48	50	52	54	56	58	60	64	51	72
50	55	58	60	63	65	68	70	73	75	80	51	90
60	66	69	72	75	78	81	84	87	90	96	51	108
70	77	81	84	88	91	95	98	102	105	112	51	126
80	88	92	96	100	104	108	112	116	120	128	51	144
90	99	104	108	113	117	122	126	131	135	144	51	162
100	110	115	120	125	130	135	140	145	150	160	51	180
110	121	127	132	138	143	149	154	160	165	176	51	198
120	132	138	144	150	156	162	168	174	180	192	51	216

KEY	
	Extremely high risk
	High risk
	Medium risk
	Risk
	Marginal risk

A risk-based system was decided upon taking into account the higher speed and focusing on the extreme and high risk only
(Pete McEvoy)



Scheduled Safety Inspection



Risk Assessments



- Ergonomic risk assessment for both summits
- Ergonomic risk assessments for most of the office work stations
- Training in Ergonomics completed
- Safety reviews (Hazard Analysis) HAZANS of mirror stripping and coating procedures have been undertaken 3 months before the commencement
- Chemical consultant in to review processes and do the HAZMAT training
- Lockout and tag out consultant – revamp and training of all engineering staff on both sites

Successes

Safety

- Prepare a Gemini Safety Policy that reflects your commitment.
- Recruit a Safety Manager reporting to Director and consider interim support.
- Be the champion for the revitalization of the safety system.
- Require safety leadership training for all managers.
- Seek and develop natural safety leaders.
- Support full implementation of the Gemini Driver Safety Initiative.
- Commit to several high profile safety projects with the potential for immediate wins.
- Require a risk assessment component for all projects.
- Hold personnel accountable for completing currently identified safety issues.
- Develop a formalized procedure using a Job Hazard Analysis model.
- Establish regular, high visibility contacts with all levels of organization to reinforce your safety values.
- Establish the inclusion of a relevant safety element within the daily coordination meeting.
- Publicize your commitment to safety.
- Consider adopting an internationally recognized safety management system that can be measured.

Question and Discussions



Thank you!