

LAFARGE CEMENT DIVISION GREECE

Supply Chain Scope in Lafarge Greece



Network:

- 3 plants (3 ports)
- 6 Distribution Centers (6 ports)
- 11 Quarries (3 ports)
- >800 Customer Sites/RMX

Products:

- 6 types of bulk
- 3 types bagged

Road Transportation

- >300 Road Tankers
- > 450drivers/contractors
- 95% with GPS
- > 30.000.000 km /yr

Sea Transportation

- Pneumatic ships Cement
- Bulk Carriers Raw Materials
- Contractor personnel in Sea Transport
- >250.000 nautical miles /yr

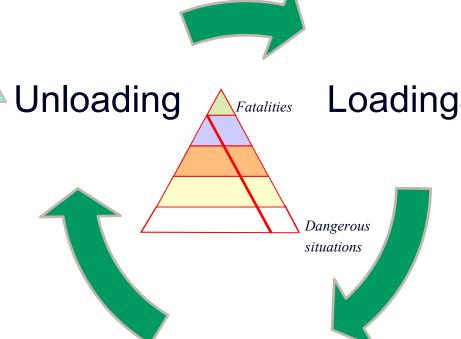


Safety Vision for Dispatching



Customer Site Safety Program:

- •Circulation Plan
- Unloading
- Silos



- Lafarge Standards
- Circulation Plan
- Safe Match
- Secure Cargo



- Road Transportation Program
- Sea Transportation (Port Safety Project)



The Five Pillars of Road Transportation Safety



GREECE

A. Behaviors

- ✓ Road Transportation Safety Days
- ✓ Defensive Driving & Induction Trainings
- ✓ VFL Audits: ("Pairno Thesi")

Antiskid – Anti roll-over Trainings

D. Performance

- ✓ Award Policy
- ✓ Sanction Policy



B. Standards

- ✓ Contractification
- ✓ Safe Driving Policy & Rules
- ✓ Loading & Unloading Rules
- ✓ Safe Pass System
- Cargo Securing
 Road Transportation Safety
 Manual

E. Monitoring

- ✓"Safe Pass"
- ✓ Speed limit violations (GPS)
- ~ Working Hours (GPS)
- ~ Unloading pressure (GPS)
- ✓ Safety Performance Database

C. Equipment

- ✓ Strict age limits for trucks, road tankers and sile
- ✓"Safe Pass" (*) requirements for vehicle

Milestones 2005 to 2010



GREECE *Awareness*

2005

Reporting of Accidents

2006

2007

Monitoring

2008

2009

201.0

Behaviors



Training of Employees and Contractors

Tools

Consolidation &

Rise in incidents

Drivers behavior

Maturing

monitoring through **GPS**

Speed limit violations reduction by 98%

VISION:

ZERO ACCIDENTS



Audits (~2500 per year)

Launch of Road Transportation Safety Program

✓ Defensive Driving training

- ✓ Drivers' assessments on the road
- ✓ Policies and procedures
- ✓ Participation in European programs

✓ Audits from external consultant (road, plant, customer) – behavior and equipment

- ✓ VFL ("PAIRNO THESI")
- ✓ Age limits for trucks
- ✓ Technical improvements

✓ Road Tr. Safety Days (1 w/end at each site)

- ✓ Co-signing with contractors of H&S **Policy**
- ✓ New contracts
- ✓ GPS Project completion
- ✓ Performance and penalty system

✓ Speed Control through speed violations monitoring

✓ SAFE PASS System

✓ Road **Transportation** Safety Day follow up

✓ SAFE PASS System

Local speed limits

Driving hours

Reduce risk at interfaces / coresponsibility: un/loading, customer sites

Holistic Vendor Evaluation System **Process**



Safe Road Transportation Campaign 2010



Content:

- 5 events throughout Greece for all silo trucks drivers & owners
- Emphasis on People, Behaviour & Risk Awareness
- 10 Golden Rules for safe transportation & Unloading Video
- Unsafe conditions reporting booklet
- Q&A
- Target Audience
 - Drivers & Owners
 - Customers
 - Dispatch & Sales Employees
 - Key Stakeholders
- Communication Tools
 - Invitation Letter to local authorities & customers
 - Invitation Letter & Newsletter to own employees













Milestones - Dangerous situations metrics



LAFARGE

GPS:

- Real time monitoring around the clock
- Increased visibility on unsafe situations
- · Measuring of critical KPIs
- Drastic reduction of incidents

Pressure Monitoring System:

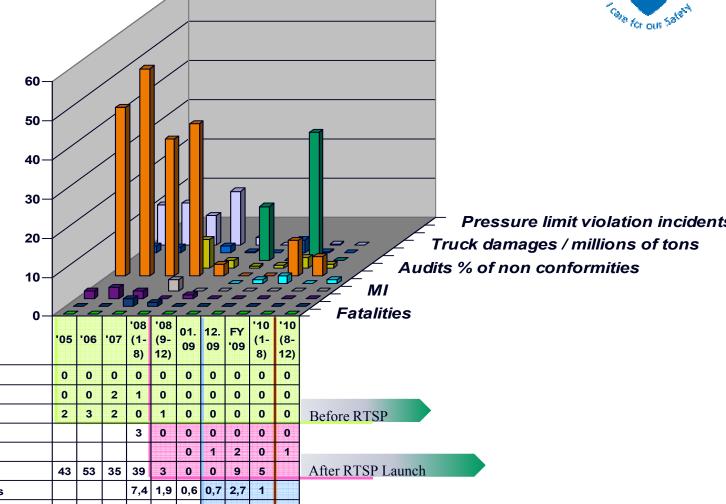
- Real time monitoring around the clock
- Increased visibility on unsafe overpressurization situations
- Termination of unloading process on pressure limit violation

■ Fatalities - Third Party

■ Fatalities

■ LTI

□ МІ







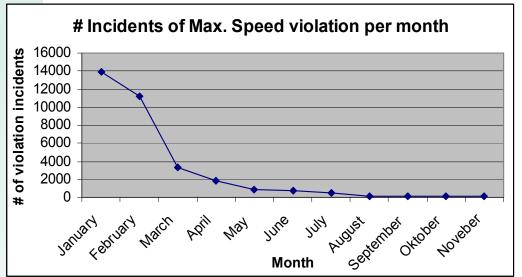
	□ FA						0	1	2	0	1	
	□ Truck damages	43	53	35	39	3	0	0	9	5		After RTSP Launch
	□ Audits % of non conformities				7,4	1,9	0,6	0,7	2,7	1		
	■ Speed violation incidents (000's)						13,9	0	33	0,1		
7	■ Truck damages /millions of km	1,7	1,5	1	1,7	0,3	0	3,3	0,3	0		
	□ Truck damages / millions of tons	10	11	7,6	14	2,1	0	0	0,3	0		After GPS Installation
	■ Violation of driving hours regulation											
	□ Driving profile: Harsh acceleration											
	Pressure limit violation incidents											After Pressure Monitoring System & TCS

Through continuous improvements and usage of new systems we managed to identify additional KPIs that will lead us towards reduction of unsafe conditions

Safety Road Transportation – GPS Safety Metrics



GREECE





- Performance metrics evolution in 2009
 - Speed violation incidents from 14,000 in January down to 20 in December
 - % of non conformities from 80,1 % of fleet in January down to 5,6
 % in December



Others Campaigns for People Transport





Η Ασφάλου αποτελοί θεμελιώδη αθία για των Όμελο Επαιριών της Α.Τ.Ε.Τ. ΗΡΑΚΑΗΣ και πρωτερούτατο κα όλος τις δροκτηριότατός μας, με στέκε την κόρραίμετη Συμπεριφορός Ασφάλειος και μεδέν στιναίμετα.

Ειδικά για την οδιαία φαφάλαια, εφοραξονμα ένα ελεκληρωμένα τρόγραμμα, τον καλόπται έλας της δραστορότατες οδιαών μεταφορών και μεταφορών και μεταφορών και μεταφορών και διαλόπικος διαθέρται στην εκπαθέρται (αριντική οδήγηση) και στην εκπαθέρται του εκπαθέρται στην εκπαθέρται στην εκπαθέρται στην εκπαθέρται του το Αλλογία συμπαριφορός κατά την εθέγηται. Με το πρόγραμμα αυτώ, τι Α.Γ.Ε.Τ. ΗΡΑΚΑΝΣ μία από τις πρώτες ελλογικής εκταρίες που υπόγραφορα την Ευρωπαϊκή Χάρτα Οδικός Αρφάλειας, συμμετίσει στην πρωταδούλα της Ευρωπαϊκής Συμετής και θυνατοφόρουν εθεούν στικητική των Ευρωπαϊκής Συμετής και θυνατοφόρουν εθεούν στικητικήται.









Truck Control System – Safety Centered Dispatching

- Description of TCS
 - An integrated fleet dispatching system
- Scope in terms of safety
 - Safety centered route allocation and dispatching SCD (e.g. route safety risks, driving hrs)
 - Reduction of drivers waiting time at dispatch sites
- Safety performance metrics
 - Drivers daily working hours
 - Drivers waiting time
 - Route history (Speed Violations)
 - Max unloading pressure overruns

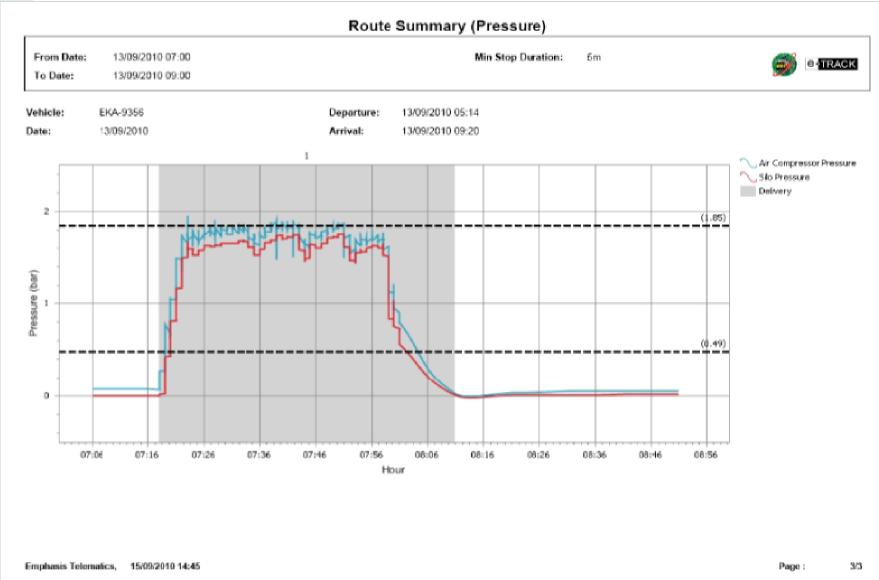






Report

GREECE





Others Campaigns for People Transport



Safe Driving at Head Office Campaign







Others Campaigns for People Transport



Safe Driving at Head Office Campaign

Mandatory Rules

- General good physical and health condition for driving
- Systematic use of safety belts (even for short trip)
- No use of mobile phone while driving
- Strict respect of road legislation
- Helmet must be worn on motorbike



Personal behaviour is the critical contributor to safe driving and it is a daily personal discipline.

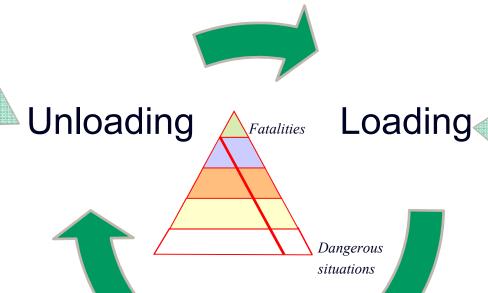


Supply Chain Safety Vision for Dispatching



Customer Site Safety Program:

- •Circulation Plan
- Unloading
- Silos



- Lafarge Standards
- Circulation Plan
- Safe Match
- Secure Cargo

In Transit

- Road Transportation Program
- Sea Transportation (Port Safety Project)



Improvement projects and actions plans are in place for all three Loading – In Transit – Unloading