

2012 Health & Safety Awards



(Sponsored by Lafarge Cement UK)

Theme: Physical Safety, Behavioural Safety or Occupational Health

Entrant Company:	Marshalls PLC
Entrant Contact Name:	John Clarkson
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Project Name:	Wetcast
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Senior Manager Signature:	John Sheaver.
Date:	09/03/12

One Entry Form for each distinct Entry

Entry Form and supporting documents e.g. e-documents, with High Resolution Images where used, to arrive at British Precast no later than Friday, 16th March 2012.

We thank Lafarge Cement UK for their continuing support

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Precast Safety

A submission to British Precast Federation Safety awards 2012

Prepared by

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Safety, Health & Environmental Team Stonemarket Roadmeetings Carluke ML8 4QG

March 2012

Contents

- 1. Executive summary
- 2. Background
- 3. Methodology
- 4. Benefits

1. Executive Summary

The task was to improve the working environment for our staff within our precast department from the mixing of our concrete mix to the finished product.

The department had not only Physical Safety issues, but there were also Occupational Health issues for our staff.

Marshalls PLC has improved the site since 2007 when it was purchased from the previous private owner.

The Precast batching was an old Wingert mixer which was housed in a tin shed type building which had little or no protection from the weather. The operator was either too hot in summer or too cold in winter.

The mixer hopper was manually filled with aggregates by the operator using the large winch assisted shovel as shown in the pictures below.





The bagged cement was then lifted into place on the hopper, the bags were then cut open by a shovel and the bags then manually tipped into the hopper.

Any colour, additives or chemicals were then also added by hand.

Various types of PPE were provided but this was not always comfortable to wear due to it being a manual task with varying ambient temperatures depending on the time of year.

Once the batch was mixed it would then be transferred into a small skip and then transported into the plant by a fork lift truck and tipping skip.

This concrete was then tipped into a small hopper above the vibrating table.

The operator then operated a switch to dispense the concrete into moulds which had been placed on the vibrating table under the hopper by another operator.

The main task was to reduce the manual handling, dust inhalation and the exposure to vibration for the operators.

2. Background

The site made a case to put to the board for the capital sum of £174,000 to invest in the department but was not confident of approval due to the reduction in capital expenditure by the group.

The site also confirmed that the improvements could be made without minimal interruption to the production.

The product made in the department is one of the best manufactured within the group and the group were looking to the site to increase the production. Using the present machinery would increase the manual handling and the dust and the vibration issues for the staff in the department.

3 Methodologies

The first solution was to reinstate a semi automatic machine which had stood idle for several years before the acquisition of the site.

This also involved the transfer of over a 1000 moulds from their current state onto boards that could be handled by the machine. The work was done in house.

The move to this machine would allow the operators to make the extra product without any increase in vibration exposure or manual handling.

In fact there would be a significant reduction in exposure to both as the moulds are carried in trays by a fork lift truck and placed below the concrete hopper automatically by the machine.

The operators are also isolated from the vibration by the machine guarding. The mix design has also been changed to allow the use of a self levelling concrete which also reduces the amount of time the vibration is running.

Having reduced the vibration levels and operating time the department has seen a reduction in overall noise levels, a benefit not considered at the outset.

Previously cured product was stripped from the moulds by hand. The men would work as a team turning over the moulds and then lifting the product onto a pallet. This machine demoulds the product automatically.



The second improvement was to the batching or mixing of the concrete; this would involve the installation of a mixer, silos, a new building, hoppers and conveyors.

The majority of the equipment used was second hand with a sizeable amount being refurbished by the onsite maintenance team.

All aggregates, cement, additives and colours are now added automatically to the mixer which then produces the finished mix for the production.

The concrete is now fed by screw conveyor directly into the machine hopper which removes the use of a fork lift truck and tipping skip and also allows the doors to the factory to remain closed for longer.

This reduces the fluctuation in temperatures whilst also giving a reduction in fuel used to heat the building.

By having silos and a mixer we would take away the manual handling issues and exposure risk from the dust and cement.

Environmentally the changes are an also improvement as the cements used are now stored in silos and not in bags on pallets and any dust is controlled by filters on the silos.

4. Benefits

The team on site put a case together based on the benefits to the company of increased Production, but more important was the reduction of manual handling, dust inhalation and vibration risks.

Environmental impacts were also considered while building the case.

In May 2011 the board agreed the agreed the capital for all the improvements for the department.

In June 2011 work started on the building for the mixer.

Work also started on the installation of the new silos for the product as shown in the picture below.



During the main building work our engineers also worked on the automatic machine for making the product, this would reduce any risk from the old vibrating table and the manual handling of the product.

Amongst the many benefits to the site and operators are;

- Reduced dust levels on the site
- 2. Reduced exposure to dust for operators.
- 3. Reduced Manual handling.
- 4. Reduced exposure to vibration
- 5. Reduction in department noise level
- 6. Reduced FLT traffic into and within department.
- 7. Increased production capacity.
- 8. Improved consistency and reliability of manufacture.

Costs

The cost for the project was £174,000 but the site is now able to safely produce almost 50% more product for the same labour/overhead cost.

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5.0 5.0 6.0 2.0 8.0 3.0 2.0 5.0 15.0 7.0 7.5

Marshalls Carluke

Risk assessments pre and post project



ctio	Section 2: Hazard Identification							Ker No.		PRAW.01
Ref No.	Hazards/Aspects: Describe/List them below	Those at Risk: Impact	Ş 7	Uncontrolled Rating L S R	pel &	Consider Hierarchy of controls (see guidance sheet) Existing Controls	ı,	Controlled Rating S F	p	Further Controls/Suggested Improvements
-	Manual Handling	Operators	ო	ო	o	Job rotation. Manual Handling training	-	ო	ო	Saissor lifts
81	Noise induced hearing loss	₽	4	က	12	PPE and health surveillance	7	က	9	Monitor PPE use
m	Slips trips and falls	All	7	က	9	Housekeeping	-	ო	ო	maintain good standards
4	Wet concrete burns etc	Operators	က	က	o	PPE	-	ო	m	Monitor PPE use
ю	Foreign body in the eye	Operators	7	ო	9	PPE	-	ო	က	Monitor PPE use
ဖ	Vibration	Operators	2	4	00	SOPs and health surveillance	-	4	4	Move to automated line
_	Behaviour - horse play	All employees	4	4	16	Interview selection process. Induction training, Safety awareness training, On going assessment, supervision	~	7	7	
00	Capabilities - experience	Maintenance staff	ည	4	20	Induction training, training program, other training depending on what the individual requires	-	4	4	
o	Capabilities - health	Maintenance staff	S	4	20	Pre-employment health questionnaire / annual health screening, group health procedure	-	4	4	
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	VO NO	Sectio	Mould along transfe			Section
Management sign off Likelihood 1 Unlikely 2 Possible 3 Likely 4 Probable 5 Certain	Move as m	Section 3: Action Diary Ref	Description of Task/Area being assessed Moulds are placed by hand onto a vibrating table. They a along the table, picked up and placed on a stack. The he transferred onto the Cassani semi automatic machine. Are there any specific assessments required? (Highlight as appropriate)	Task	Dept/Area	Section 1: Task Overview
Name Severity	Move as much as possible to Cassani line	Agreed Remedial Actions	Moulds are placed by hand onto a vibrating table. They are then filled with concrete from an overhead along the table, picked up and placed on a stack. The heavier products are lifted with a vacuum lift. The transferred onto the Cassani semi automatic machine. Are there any specific assessments required? (Highlight as appropriate) P.P.E. Manua	Mould fillings	Wetcast	
1 Mirror 2 Moderate 3 Major 4 Serious 5 Catastrop	assani line	ns	hen filled ver products	llings		Gen
phic			with concrets are lifted		Ass	eral Risk
Pos afety, Consider deg nvironmental; Cons			ete from an ove		Assessor:	General Risk Assessment Work Sheet
Safety; Consider degree of possible injury and number affected Environmental; Consider size of potential spillage, ease of containment and level of effective Consider possible reject rate and level of difficulty to rectify	Management	By Whom	Description of Task/Area being assessed Moulds are placed by hand onto a vibrating table. They are then filled with concrete from an overhead hopper controlled by the operator. The mould is then pushed along the table, picked up and placed on a stack. The heavier products are lifted with a vacuum lift. This is now a reduced frequency as the product is being transferred onto the Cassani semi automatic machine. Are there any specific assessments required? (Highlight as appropriate) P.P.E. Manual Handling C.O.S.H.H. C.O.S.H.H.	Issue No	John Clarkson	Vork Sheet
containment and level of	end 2011	By When	e operator. The mou uency as the produc	3 Review	Date Assessed	Ref No.
Date 1 - 4 Low of effe 5 - 12 Med 16 - 25 High		en Completed	ould is then puct is being	08/01/2014	10/01/2012	o. PRAW.01

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Ref No.	Hazards/Aspects: Describe/List them below	Those at Risk: Impact	5 _	Uncontrolled Rating L S R	E R	Consider Hierarchy of controls (see guidance sheet) Existing Controls	ŭ	Controlled Rating S R	_ ∝	Further Controls/Suggested Improvements
	Manual Handling	Operators	-	ო	ო	Job rotation. Manual Handling training. Moving products to Cassani	-	ო	Ф.	Scissor lifts
	Noise induced hearing loss	All	~	က	60	PPE and health surveillance	2	ო	ø	Monitor PPE use
	Slips trips and falls	All	-	က	ო	Housekeeping	•	ო	m	maintain good standards
	Wet concrete burns etc	Operators	-	ო	ო	PPE	-	ო	က	Monitor PPE use
	Foreign body in the eye	Operators	-	ო	60	PPE	~	ო	60	Monitor PPE use
	Vibration	Operators	-	4	4	SOPs and health surveillance	-	4	4	Move to automated line
	Behaviour - horse play	All employees	4	4	16	Interview selection process, Induction training, Safety awareness training, On going assessment, supervision	-	7	2	
	Capabilities - experience	Maintenance staff	2	4	20	Induction training, training program, other training depending on what the individual requires	~	4	4	
	Capabilities - health	Maintenance staff	2	4	20	Pre-employment health questionnaire / annual health screening, group health procedure	-	4	4	
10					0				0	
7-					0				0	
12					0				0	
5	13 PRA.00				0	2			0	Paver Systems

Ref No. PRAW.02	controls Controlled Further eet) Rating Controls/Suggested ls L S R Improvements	use check 1 4 4	dures 1 3 3	1 3 3 retaining device for skip	rained 1 2 2 Automate batching and feed direct into machine	uction ing, On goin 1 2 2	am, other 1 4 4	naire / 1 4 4	0	0	0	0	0	
	Consider Hierarchy of controls (see guidance sheet) Existing Controls	Trained drivers and pre use check books	Safe operating procedures		House keeping and trained drivers/operators	Interview selection process, Induction training, Safety awareness training, On goin assessment, supervision	Induction training, training program, other training depending on what the individual requires	Pre-employment health questionnaire / annual health screening, group health procedure						
	olled ng R	00	Ø	φ	ω	16	20	20	0	0	0	0	0	
	Uncontrolled Rating L S R	4	က	က	2	4	4	4						
	ב ק	0	7	2	ю	4	2	တ						
	Those at Risk: Impact	Ψ	Operator	ЫA	Ψ	All employees	Maintenance staff	Maintenance staff						
Section 2: Hazard Identification	Hazards/Aspects: Describe/List them below	Fork truck collisions	Slips, trips and falls	Skips slipping from the forks	Concrete spills and splashes	Behaviour - horse play	Capabilities - experience	Capabilities - health						
ection	Ref No.	-	2	က	4	ю	ø	7	∞	6	10	7	12	

Specifion 1: Task Overview Westcast Assessor: John Clarkson DeptyArea Westcast Assessor: John Clarkson Dissue No Date Description of Task/Area being assessed P.P.E. Issue No Issue No By When Date Dat			Quality; Consider possible reject rate and level of difficulty to rectify	Quality; Conside	Catastrophic	5		5 Certain	
General Risk Assessment Work Sheet Assessor: John Clarkson Bate Assessed 10/1 Assesse	16 - 26 Hig				Serious	4			
General Risk Assessor: Assessor: John Clarkson Assessed Assessed Tef No. PRAN Date Assessed 10/1 Assessed Toll Date Assessed Assessed Toll Date Toll Da					Major	3			
General Risk Assessment Work Sheet Assessor: John Clarkson Bate 10/0 Assessed 10/0 As	6 - 12 Mes	nent and level of effe	Consider size of potential spillage, ease of containm	Environmental:	Moderate	2			
General Risk Assessment Work Sheet Ref No. PRAN					Minor				
Cos. PRAN PRAN PRAN PRAN PRAN PRAN PRAN PRAN Pate Pran	1 - 4 Low		er degree of possible injury and number affected	Safety; Conside		Severity		kelihood	_
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General Risk Assessment Work Sheet Assessor: John Clarkson Assessed Issue No Sheet Assessed Per with concrete Issue No Sheet Assessed Review Date Date Assessed Review Date Date Co.S.H.H. Egy Whom By Whom By When Co.D.S.H.H. Date Date Date Date Date Date Date Dat	Dec	May-11	Maintenance & MI&D			batahina	A		_
General Risk Assessment Work Sheet Assessor: John Clarkson Assessed Per with concrete Issue No Serview Date Date Date Assessed Per with concrete is emptied into the hopper. This is a much reduced operation as the P.P.E. Manual Handling C.O.S.H.H. C.O.S.H.H.	Complete	1	By Whom			nedial Actions	Agreed Ren		No.
General Risk Assessment Work Sheet Assessor: John Clarkson Date Assessed Issue No 5 Review Date Dis lifted and the concrete is emptied into the hopper. This is a much reduced operation as the P.P.E. Manual Handling C.O.S.H.H.								Action Diary	Section 3
Assessor: Assessor: John Clarkson Ref No. Pate Assessed Issue No 5 Review Date Date Assessed Issue No 5 Date Date Date Date Date Date		C.O.S.H.H.	Manual Handling		P.P.E.	appropriate)	ed? (Highlight as a	specific assessments require	Are there any
John Clarkson Issue No 5 Ref No. P Assessed Review Date	e Cassan	d operation as th		rete is emptie	and the conc	. The skip is lifted hopper.	truck in a skip. seding into the	ete is carried by fork lift omatic batching plant fo	Vet concr
Wetcast Assessment Work Sheet Ref No. P Wetcast Assessor: John Clarkson Assessed Assessed Issue No 5 Date Date Date Date Date						Ď	eing assesse	ription of Task/Area b	Des
Wetcast Assessor: John Clarkson Assessed Ref No. P	08/01/20	Review			1 concrete	the hopper with	Filling	Task	
General Risk Assessment Work Sheet	10/01/20	Date Assessed	John Clarkson	sessor:	As	tcast	We	pt/Area	De
	PRAW.02		nt Work Sheet	k Assessme	General Ris			Task Overview	Section 1

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2	Section 2: Hazard Identification						Ž	Ker No.	PRAW.02	
۵	Hazards/Aspects: Describe/List them below	Those at Risk: Impact	, L	Uncontrolled Rating	9 &	Consider Hierarchy of controls (see guidance sheet) Existing Controls	20 J	Controlled Rating S R	d Further Controls/Suggested R Improvements	ner uggested ments
	Fork truck collisions	Ψ	-	4	4	Trained drivers and pre use check books	•	4	4	
	Slips, trips and falls	Operator	-	ო	n	Safe operating procedures	-	ന	e	
쭚	Skips slipping from the forks	E A	~	ო	n		-	ო	s retaining device for skip	ice for skip
3	Concrete spills and splashes	All	-	7	N	House keeping and trained drivers/operators	-	2	Automate batching and feed direct into machine	ng and feed ne
Ä	Behaviour - horse play	All employees	4	4	16	Interview selection process, Induction training, Safety awareness training, On goin assessment, supervision	-	8	2	
0	Capabilities - experience	Maintenance staff	2	4	20	Induction training, training program, other training depending on what the individual requires	_	4	4	
	Capabilities - health	Maintenance staff	5	4	20	Pre-employment health questionnaire / annual health screening, group health procedure	-	4	4	
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Catastrophic

Quality; Consider possible reject rate and level of difficulty to rectify

Environmental; Consider size of potential spillage, ease of containment and level of effe

Major Serious Minor Moderate

Unlikely

Possible Likely

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ctic	Section 2: Hazard Identification						_	Ref No.		PRAW.03
Ref No.	Hazards/Aspects: Describe/List them below	Those at Risk: Impact	, L	Uncontrolled Rating L S R	E &	Consider Hierarchy of controls (see guidance sheet) Existing Controls	ت ق	Controlled Rating S R	0 ℃	Further Controls/Suggested Improvements
~	Operation of the scoop	Operators	8	7	4	Trained operators	-	7	0	Automatic mixer
2	Splashing of wet concrete	Operators	8	2	4	P.P.E	-	2	2	Monitor PPE use
က	Noise induced hearing loss	Operators	7	က	ဖ	P.P.E & Health surveillance	-	ო	60	Monitor PPE use
	Inhalation of dust/cement	Operators	7	က	ဖ	P.P.E & Health surveillance	-	ო	m	Monitor PPE use
	Contact with moving machinery	Operators	8	ო	9	Trained operators	-	ო	ო	
	Slips, trips and falls	Operators	7	7	4	Housekeeping	-	7	2	Maintain housekeeping standards
	hazardous substances added by hand	Operators	2	ო	9	P.P.E & Health surveillance	-	ю	60	COSHH assessments
	Electric shock	Operators	7	က	ဖ	Housekeeping	-	ო	6	Report defects
	Manual Handling	Operators	7	က	9	25kg bags	-	ന	က	Automatic mixer
10	Cleaning down using pressure washer	Operators	8	က	ဖ	Safe operating procedure	-	ო	60	
7	Inhalation of silica	Operators	7	ю	ဖ	P.P.E & Health surveillance. Safe operating procedure	-	ო	60	Monitor PPE. Use alternative product
5	Behaviour - horse play	All employees	4	4	91	Interview selection process, Induction training, Safety awareness training, On going assessment, supervision	-	7	22	
2	Capabilities - experience	Maintenance staff	S	4	20	Induction training, training program, other training depending on what the individual requires	•	4	4	
4	PRA.00					2				Paver Systems

08/01/2014	Review	6	Issue No		Mixer Operation	Task
10/01/2012	Date Assessed		John Clarkson	Assessor:	Wetcast	Dept/Area
PRAW.03	Ref No.		k Sheet	General Risk Assessment Work Sheet	Ge	ection 1: Task Overview

Description of Task/Area being assessed

colour or other additives are then a also added to the weigh hopper by hand. This is then lifted by hydraulic cylinder and tipped into the rotating mixer drum. The feeding the machine. placed by the drum chute. The skip is then taken by fork lift to the required hopper. This is a much reduced operation now due to automated batching system water is then added by the operator. When the mix is complete the drum is reversed by pulling a lever, the forces the concrete to pour into a skip which has been The mixer weigh hopper is filled with aggregates by means of an electrically assisted scoop. The cement is then added by hand. This is supplied in 25kg bags. Any

May-1	May-11	Management	Use alternative to silica sand	
Dec-1	May-11	Maintenance & MI&D	Automate batching operation	
Completed	By When Completed	By Whom	Ref Agreed Remedial Actions	Z Z
			Section 3: Action Diary	Sec
	С.О.Ѕ.Н.Н.	Manual Handling	Are there any specific assessments required? (Highlight as appropriate)	Are

Specific Training Requirements

Safety; Consider degree of possible injury and number affected Environmental; Consider size of potential spillage, ease of containment and level of effective consider possible reject rate and level of difficulty to rectify	Severity 1 Minor 2 Moderate 3 Major 4 Serious Cotastrophic Orgality	Se	Likelihood 1 Unlikely 2 Possible 3 Likely 4 Probable
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ecti	Section 2: Hazard Identification						_	Ref No.	•	PRAW.03
No.	Hazards/Aspects: Describe/List them below	Those at Risk: Impact	ž ¬	Uncontrolled Rating L S R	E &	Consider Hierarchy of controls (see guidance sheet) Existing Controls	ŭ	Controlled Rating S R	_ ℃	Further Controls/Suggested Improvements
_	Operation of the scoop	Operators	7	2	4	Trained operators	~	7	2	
01	Splashing of wet concrete	Operators	-	2	2	P.P.E	~	2	2	Monitor PPE use
m	Noise induced hearing loss	Operators	-	ო	ო	P.P.E & Health surveillance	-	ო	က	Monitor PPE use
4	Inhalation of dust/cement	Operators	- -	ო	ო	P.P.E & Health surveillance	~	ო	က	Monitor PPE use
rð.	Contact with moving machinery	Operators		က	n	Trained operators	~	ო	60	
ဖ	Slips, trips and falls	Operators	-	7	N	Housekeeping	~	7	2	Maintain housekeeping standards
7	hazardous substances added by hand	Operators	-	ю	m	P.P.E & Health surveillance	-	ო	60	
60	Electric shock	Operators	-	က	m	Housekeeping	-	ო	60	Report defects
တ	Manual Handling	Operators	8	က	ω	25kg bags	-	ო	6	
10	Cleaning down using pressure washer	Operators	7	က	9	Safe operating procedure	-	ო	က	
7	Inhalation of silica	Operators	-	က	ო	P.P.E & Health surveillance. Sate operating procedure. Sand now replaced.	-	ო	60	
12	Behaviour - horse play	All employees	4	4	16	Interview selection process, Induction training, Safety awareness training, On going assessment, supervision	~	7	N	
55	Capabilities - experience	Maintenance staff	S	4	20	Induction training, training program, other training depending on what the individual requires	-	4	4	
0	PRA.00					2				Paver Systems

16 - 26 High

Environmental; Consider size of potential spillage, ease of containment and level of effered of effered of effered of effered of effered of environmental; Consider size of potential spillage, ease of containment and level of effered of effered of environmental of effered of effered of environmental of effered of environmental of environmental of environmental of effered of environmental of environmental of environmental of environmental of environmental of environmental of effered of environmental of environmen

Section 1	Section 1: Task Overview	9	General Risk Assessment Work Sheet	t Work Sheet	Ref No.	PRAW.04
ď	Dept/Area	Wetcast	Assessor:	John Clarkson/Gerry Maley	Date Assessed	20/12/2010
	Task	Stripping moulds and	and oiling	Issue No 3	Review	18/12/2012
Des	Description of Task/Area being assessed	ing assessed				
Once a pri finished p cleaned a	Once a product has cured the moulds are stripped by hand. T finished product is checked for quality and then placed on a pa cleaned and then release agent is applied using a spray gun.	ids are stripped by hand. This invility and then placed on a pallet. Tapplied using a spray gun. The m	rolves lifting a mould from the pallet is then finished nould is then wiped with a	Once a product has cured the moulds are stripped by hand. This involves lifting a mould from a stack and turning it over to allow the product to drop out. The finished product is checked for quality and then placed on a pallet. The pallet is then finished by banding and shrink-wrapping as required. The empty mould is cleaned and then release agent is applied using a spray gun. The mould is then wiped with a cloth to remove excess oil	product to drop quired. The empt	out. The y mould is
Are there an	Are there any specific assessments required? (Highlight as appropriate)	? (Highlight as appropriate)	P.P.E.	Manual Handling	C.O.S.H.H.	
Section 3	Section 3: Action Diary					
Ref No.		Agreed Remedial Actions		By Whom	By When	Completed
		Move to Cassani		Management	End 2011	Dec-11
Spe	Specific Training Requirements	ents				
Z	Management sign off	Name		Position	Date	
_	Likelihood	Severity	Safety; Consider	Safety; Consider degree of possible injury and number affected		4.41 000
	1 Unlikely	A Min	Minor			

Quality; Consider possible reject rate and level of difficulty to rectify

Catastrophic

2

Major Serious

4

Probable

Certain

2

Moderate

7

Possible

Likely

2 1 0					8 Capat	7 Behav	ஏ	5 Spills	4	<u>ა</u>	2 Produ	<u>.</u>	Ref Ha	Section 2: Haz
				Capabilities - health	Capabilities - experience	Behaviour - horse play	Over oiling	Spills of oil/release agent, product, risk of eye injury	Dermatitis	Slips trips and falls	Product falling from pallets	Manual Handling	Hazards/Aspects: Describe/List them below	Section 2: Hazard Identification
				Operators	Operators	All employees	Quality	Environment, operator	Operators	Operators	Operators	Operators	Those at Risk:	
				ഗ	Ŋ	4	N	_	_	N	N	2	۲ چ	
				4	4	4	N	4	4	10	N	ယ	Uncontrolled Rating L S R	
	0	0	0	20	20	16	4	4	4	4	4	o	77 6	
				Pre-employment health questionnaire / annual health screening, group health procedure	Induction training, training program, other training depending on what the individual requires	Interview selection process, Induction training, Safety awareness training, On going assessment, supervision	Trained operators	Spillage procedures.PPE. Bunded Stands	PPE - COSHH assessments	Housekeeping	PPE and personal awareness	Manual Handling Training	Consider Hierarchy of controls (see guidance sheet) Existing Controls	
				_	_	_		_	_	_	_	_	٦ ٥	20
				4	4	N	2	4	4	N	N	ω	Controlled Rating	Ref No.
	0	0	0	4	4	N	N	4	4	N	N	ω	70 <u>6</u>	
													Further Controls/Suggested Improvements	PRAW.04
													ment:	

ection 1: Lask Overview	Gene	General Risk Assessment Work Sheet	t Work Sheet	Ref No.	PRAW.04
Dept/Area	Wetcast	Assessor:	John Clarkson	Date	10/01/2012
Task	Stripping moulds and oiling	91	Issue No 4	Review	08/04/2044
Description of Task/Area being assessed	rea being assessed			Date	1000
nce a product has cured the lished product is checked for eaned and then release agout the matically by the Cassani	ince a product has cured the moulds are stripped by hand. This involves lifting a mould from a stack and turning it over to allow the product to drop out. The lished product is checked for quality and then placed on a pallet. The pallet is then finished by banding and shrink-wrapping as required. The empty mould is eaned and then release agent is applied using a spray gun. The mould is then wiped with a cloth to remove excess oil. The main products are demoulded atomatically by the Cassani and are also oiled on the machine. Therefore the operation frequency is largely reduced.	is lifting a mould from a pallet is then finished by is then wiped with a core the operation frequ	a stack and turning it over to allow the banding and shrink-wrapping as ratioth to remove excess oil. The main ency is largely reduced.	e product to drop equired. The empt products are dem	out. The y mould is oulded
e there any specific assessments required? (Highlight as appropriate)	equired? (Highlight as appropriate)	i,	Manual Handling	3 0 0	
sction 3: Action Diary				. E. C.	
Ref No.	Agreed Remedial Actions		By Whom	By When	Completed
	Move to Cassani		Management	End 2011	Dec-11
Specific Training Requirements	irements				
Management sign off	Moment				
		og.	Position	Date	
Likelihood	Severity	Safety; Consider de	Safety; Consider degree of possible injury and number affected		
1 Unlikely	ely 1 Minor				1 - 4 Low
2 Possible	ble 2 Moderate				
3 Likely	3 Major	Environmental; Cons	Environmental; Consider size of potential spillage, ease of containment and level of effer	nent and level of effer	5 - 12 Med
4 Probable	lble 4 Serious				
5 Certain	in 5 Catastrophic		Quality, Consider possible reject rate and level of difficulty to rectify	12	15 - 25 High

0			>	0					ಪ
				0					12
				0					<u> </u>
	_			0					10
4		_	Pre-employment health questionnaire / annual health screening, group health procedure	20	4	ഗ	Operators	Capabilities - health	ဖ
4		_	Induction training, training program, other training depending on what the individual requires	20	4	ഗ	Operators	Capabilities - experience	œ
N		_	Interview selection process, Induction training, Safety awareness training, On going assessment, supervision	16	4	4	All employees	Behaviour - horse play	7
N		_	Trained operators	4	N	N	Quality	Over oiling	စ
4	_	_	Spillage procedures.PPE, Bunded Stands	4	4	_	Environment, operator	Spills of oil/release agent, product, risk of eye injury	Ol
4		_	PPE - COSHH assessments	4	4	_	Operators	Dermatitis	4
N		_	Housekeeping	4	N	N	Operators	Slips trips and falls	ယ
N		_	PPE and personal awareness	4	N	2	Operators	Product falling from pallets	N
ယ		_	Manual Handling Training	o	ω	N	Operators	Manual Handling	->
Controlled Rating	0	٦ ٥	Consider Hierarchy of controls (see guidance sheet) Existing Controls	77 8	Uncontrolled Rating	L Luc	Those at Risk:	Hazards/Aspects: Describe/List them below	N R
Ref No.								Section 2: Hazard Identification	ection

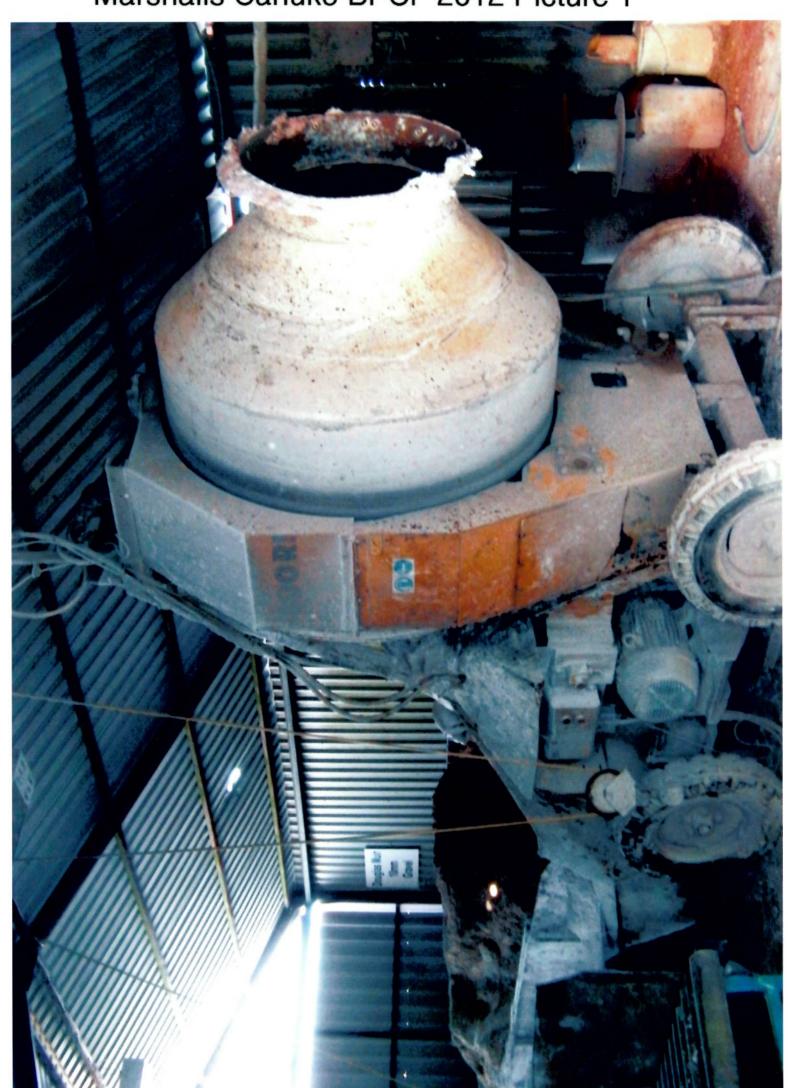
MANUA	L HANDLING ASSESSM	ENT V	VORKSHE	ET: Ref N	o. PRAW.06
Job Title:		Locat		Paver Sy	ystems
Task:	Filling moulds from hopper	Date:	20/12/2010	Revision No:	2
No of Pers	ons Effected: 6 Asse	ssor's l	lame:	John Cla	arkson
Section A	- Preliminary Assessment:				
	ne operations present a significant	risk of ir	njury?		No
	res" go to Q2. If "No" the assessment ne				
O2 - Can	the operation be avoided/mechanis	sed/auto	mated at a re	asonable cost?	No No
	o" go to Section B. If "Yes" do it, then che				
			-		
	Overall Assessment:	-	0	4 6	0
(same nel	t is the overall assessment	0 None	2 Incignificant	4 6 Low Mediu	8 Wigh
	he risk of injury? _/M/H" go to Section D. If "None/Insignific		Insignificant		um High
				go no rarator.	
Section D	- Remedial Actions:				
Q1 - Wha	t remedial actions should be taken	in order	of priority?		
1 1	Noise survey to be carried out				
2	Scissor lift required at stacking tabl	le			
3 1	ocal lighting to be improved				
4 1	Move suitable products to Cassani	line			
5					
Section E	- Assessment Comments:				

Questions to consider:	Lev	el of r	isk:	Possible remedial actions:			
	Н	M	L	T GOODIO TOTTIGUICA COLOTIO			
The Task: does it involve:-							
holding away from the trunk?							
turning - twisting?							
stooping?				lles of west war lift reduces many al			
reaching upwards?				Use of vaccuum lift reduces manual			
long vertical movements?				handling. Additional elements include			
long carrying distances?				exposure to noise and vibration. Earing			
strenuous pulling or pushing?				protection to be worn and separate			
unpredictable movement of loads?				assessments to be carried out. Look at			
repetitive handling?				moving suitable products to Cassani lin			
insufficient rest or recovery?				with automated stripping			
workrate imposed by process?							
Individuals capability: does the job:-							
require unusual capabilities?							
hazard those with health problems?				4			
hazard those who are pregnant?							
call for special information/training?				_			
The Loads: are they:-							
heavy?							
bulky/unwieldy?				When stacking heavier products vacuu			
difficult to grasp?				When stacking heavier products vac- lift is used.			
unstable/unpredictable?							
intrisically harmful (eg sharp or hot?)							
The Working Environment: are there:-							
constraints on posture?							
poor floor conditions?							
variations in levels?							
hot/cold/humid conditions?				Local lighting to be improved.			
strong air movements?							
poor lighting conditions?							
Other factors:-							
is movement or posture hindered							
by clothing or P.P.E.							

MANUAL	HANDLING ASS	ESSME	NT WORKSH	EET: F	Ref No.	PRAW.06
Job Title:	Wet cast t	filling	Location:	Pa	ver Syste	ems
Task:	Filling moulds from h			Revision	No:	3
No of Perso	ons Effected:	6 Asses	sor's Name:	J	ohn Clarks	on
Section A -	Preliminary Assessme	nt.				
	e operations present a si		sk of injury?			No
	es" go to Q2. If "No" the asse	T				
O2 Can th	o operation be evoided	/maahaniaa	ad/automatad at a		+0	Nie
	ne operation be avoided, go to Section B. If "Yes" do				COSt?	No
		it, then once	- That the result is sails	raciory.		
	Overall Assessment:					
4255000	is the overall assessmen	nt	0 2	4	6	8
	e risk of injury?		None Insignifican			High
If "L/I	M/H" go to Section D. If "Nor	ne/Insignifica	nt" the assessment nee	ed go no furth	ier.	
Section D -	Remedial Actions:					
Q1 - What	remedial actions should	be taken in	n order of priority?			
1 <u>N</u> c	oise survey to be carried	out - comp	olete			
2 Sc	cissor lift required at stac	cking table	- complete	700000		
3 Lc	cal lighting to be improv	ed - ongoir	ng mayintenance		****	
4 M	ove suitable products to	Cassani lir	ne - majority comple	ete		
5				120000000000000000000000000000000000000	***	
-						
Section E -	Assessment Comment	ts:				

Section B - Detailed Assessment: Questions to consider:	1 01	el of	risk.	Possible remedial actions:
Questions to consider.	H	M	L	1 0331bit Territorial decione.
The Task: does it involve:-		107	-	
holding away from the trunk?				
turning - twisting?				
stooping?				
reaching upwards?				1
long vertical movements?				Use of vaccuum lift reduces manual
long carrying distances?				handling.Additional elements include
strenuous pulling or pushing?				exposure to noise and vibration. Earing
unpredictable movement of loads?				protection to be worn and separate
repetitive handling?		1		assessments to be carried out.
insufficient rest or recovery?				
		-		
workrate imposed by process?				
Individuals capability: does the job:-			-	-
require unusual capabilities?			-	-
hazard those with health problems?			-	_
hazard those who are pregnant?		-	-	
call for special information/training?				
The Loads: are they:-	ı		1	
heavy?	-			-
bulky/unwieldy?	-			
difficult to grasp?	-	_		When stacking heavier products vacuur
unstable/unpredictable?	-	-		lift is used.
15	-	1	-	-
intrisically harmful (eg sharp or hot?)				
The Working Environment: are there:-	T	1	_	
constraints on posture?	-	_		
poor floor conditions?		+-	-	-
variations in levels?		+		
hot/cold/humid conditions?		+		Local lighting to be maintained
strong air movements?		-	-	
poor lighting conditions?		+-		
poor lighting conditions:				
Other factors:-	-	-		-
is movement or posture hindered by clothing or P.P.E.		-		+
	1	1		

Marshalls Carluke BPCF 2012 Picture 1



Marshalls Carluke BPCF 2012 Picture 2



Marshalls Carluke BPCF 2012 Picture 3



Marshalls Carluke BPCF 2012 Picture 4

