

HEADS OF WORKPLACE SAFETY AUTHORITIES FINAL REPORT



National Mobile Plant in Civil Construction Project

An Australian & New Zealand Intervention Campaign


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Prepared by:	D Howard
Reviewed by:	John Sharpin
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Author (Project Manager)

Name (Position)	Signature	Date
Dennis Howard Project Coordinator, Construction Intervention		

Team Manager (Project Sponsor)

Name (Position)	Signature	Date
Rick Bultitude Team Manager Construction	 Approved / Not Approved (circle)	

Heads of Workplace Safety Authorities

Name (Position)	Signature	Date

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1. BACKGROUND

In May 2006 the Heads of Workplace Safety Authorities (HWSA) agreed to mount a national compliance campaign targeting moving plant in civil construction across all jurisdictions. HWSA is a framework that brings together the most senior Executive Officers from the Australian (State and Territory) and New Zealand Workplace Safety Authorities and seeks to improve both the operational coordination and operational consistency of the Workplace Safety Authorities. This project supported the National OHS Strategy and facilitated the development of a consistent approach to a recognised national priority.

A Joint Project Coordinating Committee made up of representatives from all participating jurisdictions coordinated the project. WorkCover New South Wales led the project and provided secretariat, project support and evaluation services. Other participants were Australian Capital Territory WorkCover, WorkSafe Victoria, Workplace Health and Safety Queensland, SafeWork South Australia, WorkSafe Western Australia and Department of Labour New Zealand. Each participating authority provided an officer to manage the joint campaign's delivery and data collection within its jurisdiction.

The joint project coordinating committee held 2 meetings prior to commencing the operational aspect of the campaign. The first meeting held on 13 July 2006 scoped the campaign, agreed on primary and secondary target issues, sectors to be targeted, compliance tools, time frames, guidance materials, cross border issues and best practices. The second meeting held on 5 September 2006 discussed project concept paper and brief, key objectives and outcomes, methodology, deliverables and time frames, reporting, communication strategy, and costs. It was agreed that a further face to face meeting would not be scheduled due to the travel restraints, and outstanding matters were followed up via email and telephone discussion. Media releases, pro-forma letters to stakeholders and PowerPoint presentations were developed by WorkCover NSW and provided to jurisdictions for their modifications and use.

2. KEY OBJECTIVES

The objectives of the project were to:

- Provide relevant advice, guidance and information to persons involved in civil construction and road works,
- Provide advice and compliance where safe systems of work are missing or inadequate,
- Measure compliance with Occupational Health and Safety (OHS) legislation applying to the identification, assessment and control of mobile plant and traffic hazards on civil construction sites,
- Provide a nationally coordinated approach, with a balance of information, assistance and enforcement activity, to educate and increase industry awareness and capacity to manage safety and identify causal factors relating to civil construction and roadwork activities.

3. SCOPE

The targeted field intervention activities associated with the project were directed at high-risk civil construction and associated roadwork activities undertaken on commercial development sites and housing estate developments. This included bulk earthworks, traffic management issues on and around these sites, resurfacing of roads (including inspections of road resurfacing works carried out at night), associated overhead and underground services and bridge works.

Primarily, inspections focussed on:

- Risk of being struck by mobile plant or vehicles in use on sites;
- Risk of being struck by mobile plant or vehicles on roads and public areas adjacent to sites;
- Safe work method statements and documented operational procedures;
- The condition of plant and equipment;
- Public safety around work sites;
- Safe access and egress for workers on site.

Secondary issues including workplace noise, manual handling, slips, trips and falls and sun protection were considered as appropriate and these issues were reported on during the site assessments, at the discretion of each individual jurisdiction.

Performance indicators and measures endorsed by HWSA were:

- A comparison of the number of contractors demonstrating legislative compliance post intervention compared to their compliance level prior to field intervention in order to evaluate immediate changes to work systems
- The analysis of notices issued to determine the most prevalent hazards for use in future deliberations
- Measurement of the increase in skills and knowledge of fieldwork inspectors through attendance at a briefing session before the commencement of the fieldwork component and mentoring by more experienced inspectors during the field visits
- The identification of prevalent languages other than English spoken on sites to influence future production of guidance materials
- The identification of causal factors that lead to observed non-compliance on site so that the factors can be considered by jurisdictions when formulating future business plans and strategies.

Field based statistics to provide structure to the final report were agreed upon as:

- Number of sites visited where mobile plant was being used;
- Number of contractors encountered during the visits;
- Number and type of notices issued;

4. METHODOLOGY

Each jurisdiction held stakeholder briefings and published media releases prior to the commencement of the operational aspect of the campaign, to encourage compliance by employers and contractors. The field-based component of the campaign was conducted over an eight-week period during February and March 2007.

The Joint Project Coordinating Committee developed various documents to assist participating Inspectors and stakeholders to understand the campaign and the areas targeted in the campaign. These documents included:

- Media Release - each jurisdiction prepared a media release based on a template provided, ensuring a consistent message was presented. (Annexure No. 1).
- Introduction letter - forwarded to all jurisdictions for distribution to external stakeholders prior to the commencement of the campaign. (Annexure No. 2).
- Flyer - each jurisdiction produced an information flyer to be attached to the introduction letter, to inform stakeholders of the campaign, detailing focus areas and highlighting further information available (Annexure No. 3).
- PowerPoint Presentations (internal and external) - Presentations were developed to assist participating Inspectors and external stakeholders.

Field activity was particularly focussed towards persons being struck by moving plant or vehicles and took into account associated public safety issues. Inspectors also attempted to identify causal factors, where possible, that may have led to non-compliance by contractors and employers.

Each participating jurisdiction agreed to undertake a number of site visits, dependent on inspector resources. The initial target of 640 visits was surpassed with a total of 679 visits being conducted during the eight-week campaign period.

Information kits containing various Codes of Practice, promotional flyers, information sheets, safety bulletins and newsletters were distributed at site visits

To assist with data analysis, Inspectors completed a standardised site report sheet (Annexure No.4). Data from the site report sheet was recorded at a local level by each jurisdiction on a pre-supplied database. The information contained within it was analysed by NSW project staff to assist the compilation of this report.

The Site Report Sheet required inspectors to rate compliance with eight primary target Issues:

- System of work to prevent workers being struck by mobile plant used in civil construction
- System of work to prevent workers being struck by moving road vehicles adjacent to work sites
- System of work to prevent risk to pedestrian and/or public safety adjacent to work sites
- Vehicle movement on site procedures adequately communicated, ie Induction and toolbox talks, etc.

- Site Safety Management plan in place/adequate
- Safe Work Method Statements adequate for purpose and site specific
- Plant condition satisfactory following visual inspection, ie log books, faulty alarms, oil leaks.
- Adequate traffic management/control plans

The Site Report Sheet also required inspectors to rate compliance with three secondary target issues:

- Noise
- Sun Protection
- Airborne Dust and Particulates

with each jurisdiction to include any additional target areas of concern for their individual reporting.

5 EVALUATION OF PROJECT AGAINST OBJECTIVES AND PERFORMANCE INDICATORS

The overall objective of this project was to raise the civil construction sector's awareness of the value of a systematic approach to Occupational Health and Safety. The project focussed on the safety of persons at the workplace where mobile plant was in use, public protection where there was a risk of conflict between public pedestrians and mobile plant in civil construction and roadwork sites.

Inspectors were required to provide a balance of information, assistance and enforcement activity to raise compliance levels where necessary and to educate and assist the industry where possible.

5.1 Specifically, the results of pre-intervention work and the project rollout were realised as detailed below:

- **Objective:** Provide relevant advice, guidance and information to persons involved in civil construction and road works.
- **Result:** Each jurisdiction provided information flyers and (where relevant networks existed) briefings to industry stakeholders, that detailed sources for information and advice related to the use of heavy mobile plant. Throughout the field component of the campaign, inspectors provided 675 information kits consisting of publications such as codes of practice, safety guides, information CDs and the like.

Objective: Provide advice and compliance where safe systems of work are missing or inadequate.

- **Result:** Inspectors took an appropriate approach to securing contractor's/employer's compliance with OHS legislation and safe work systems through advice, information and sanctions where breaches and system failures were detected.
- **Objective:** Measure compliance with Occupational Health and Safety (OHS) legislation applying to the identification, assessment and control of mobile plant and traffic hazards on civil construction sites.
- **Result:** Inspectors utilised a site report sheet and database to accurately measure compliance with OHS legislation and risk management practices. This enables accurate baseline data to be established for future reference.
- **Objective:** Provide a nationally coordinated approach, with a balance of information, assistance and enforcement activity, to educate and increase industry awareness and capacity to manage safety and identify causal factors relating to civil construction and roadwork activities.
- **Result:** The seamless organisation and conduct of this campaign demonstrates that OHS jurisdictions throughout the Australasian region can effectively devise and run a coordinated approach to a major industry risk.

5.2 The indicators demonstrating the performance of the campaign were realised as detailed below:

- **Performance Indicator:** A comparison of the number of contractors demonstrating legislative compliance post intervention compared to their compliance level prior to field intervention in order to evaluate immediate changes to work systems
- **Result:** Data collected during the fieldwork component of the campaign indicates that 33% of contractors/employers were non-compliant with OHS legislation at the time of the initial visit by an inspector. The data further demonstrates that at the completion of the campaign, 100% of the contractors/employers were demonstrating compliance with work systems that were in accordance with relevant OHS legislation.
- **Performance Indicator:** The analysis of notices issued to determine the most prevalent hazards for use in future deliberations.
- **Result:** WorkCover NSW undertook a statistical analysis of the data captured from field visits. The analysis is presented at Annexure No.5 and provides an indication of prevalent hazards for the consideration by jurisdictions when developing business plans and project concepts.
- **Performance Indicator:** Measurement of the increase in skills and knowledge of fieldwork inspectors through attendance at a briefing session before the commencement of the fieldwork component and mentoring by more experienced inspectors during the field visits.
- **Result:** Each jurisdiction reported that inspectors undertaking field work who attended a pre-campaign briefing and refresher training prior to commencement, demonstrated a high level of acceptance and satisfaction with that aspect.
- **Performance Indicator:** The identification of prevalent languages other than English spoken on sites to influence future production of guidance materials.
- **Result:** Inspectors ascertained that English was spoken predominantly throughout the civil construction sector.

- **Performance Indicator:** The identification of causal factors that lead to observed non-compliance on site so that the factors can be considered by jurisdictions when formulating future business plans and strategies.
- **Result:** Inspectors attempted, wherever possible, to identify the causal factors that led to non-compliance with safe work systems and OHS legislation. The results are recorded at Annexure 6.

6 PROJECT RESULTS

Milestones agreed upon for the project were:

- Media Release and flyers
- Visits conducted over an eight week period, February/March 2007
- Data returned to WorkCover NSW

6.1 Sites Visited

The number of visits across all jurisdictions totalled 679 sites/contractors, exceeding the target of 640 visits at the inception of the project. The split up between industry sectors were:

Target Area	Number of Visits
Civil work	390
Excavation work	77
Road maintenance	111
Industrial construction	101

6.2 Issues identified

Annexure No 5 contains a table demonstrating the number of interactions across target areas. Of the twelve areas targeted, the areas addressed by inspectors with the highest frequency were:

- Safe Work Method Statements, (which were either non-existent or inadequate)
- Plant condition, (where it was found that maintenance and plant condition was poor, or daily log books were not completed or kept)
- System of work to prevent workers being struck by mobile plant used in civil construction
- "Other" category where issues were identified regarding electrical testing and tagging, lack of amenities, ladder access, inadequately fenced excavations and lack of signage.

6.3 Types of Notices Issued

A total of 284 Notices were issued during the campaign, of which:

- 84% were Improvement notices,
- 9% were Prohibition notices,
- 7% were Penalty notices,

Across all jurisdictions, inspectors also issued formalised advice on 182 occasions.

6.4 Causal Factors

Inspectors were asked to report on Causal Factors on site. Feedback from Inspectors cited the following issues for non compliance:

- Breaches and system breakdowns found at sites were generally caused by production demands, ie contractors were so caught up in the push for production, OHS issues went under the radar
- Lack of knowledge of the law - many principals were not aware of their Occupational Health and Safety responsibilities
- The lack of diligence by site safety officers
- Able but unwilling, ie, documentation was there but not being followed by persons in control

7. PROJECT CONCLUSIONS

Incidents involving persons being struck by moving plant or vehicles in the civil construction, road maintenance, excavation and industrial construction industries are of a low frequency, but often lead to serious, if not fatal injuries.

This campaign demonstrated that around two thirds of work sites visited across all jurisdictions were compliant, with principal contractors and employers on these sites generally being aware of their occupational health and safety responsibilities although many principal contractors and employers expressed the view that there could be better notification and distribution of occupational health and safety information and legislation.

Most contractors had the basic requirements in place.

C

There was generally poor compliance with the requirement to provide adequate worker amenities.

Plant logbooks were generally not well maintained, and mobile plant observed was either in very good condition, or very poor condition

Inspectors agreed that Site Report Sheets were comprehensive and to the point, and had Inspectors looking at the minor issues/causal factors that they may not have otherwise followed up on, eg certification, induction, sun protection.

Members of the Joint Project Coordinating Committee advised that tools provided by WorkCover NSW were more than satisfactory, consultation within the committee was excellent, and communication of all facets of the project was thorough and timely.

8. RECOMMENDATIONS

It is recommended that the Heads of Workplace Safety Authorities:

- Consider and endorse the findings of this report.
- Ensure the results of this campaign are conveyed to relevant stakeholders within each jurisdiction.
- Endorse the placement of this report on the website of each jurisdiction to provide for access to it by persons outside of the jurisdiction and country.
- A telephone survey of contractors/employers that were the recipients of notices or formalised advice during the campaign be undertaken during February/March 2008 to ascertain the effect of inspector's intervention, including any changes to work systems made following the inspector's visit.

9. ACKNOWLEDGEMENTS

The Joint Project Coordinating Committee recognises the team effort required to complete and report on this campaign, and thank the following people for their efforts:

- The participating inspectors for their efforts in completing 693 site visits within the project time frame
- The support staff from each authority who assisted in various ways in the carrying out of the campaign, including administrative support, media releases and data collection and analysis.
- The various stakeholders involved from each jurisdiction.

The Project Coordinating Committee was:

ACT WorkCover (Office of Regulatory Services ACT)
WorkSafe WA
Department of Labour, New Zealand
Safe Work SA
WorkSafe Victoria

Workplace Health & Safety Qld
WorkCover NSW

Mark Curran
John Reilly
Graham Bates
Kit Lee & Carl Asker
Dorothea Ferguson &
Elizabeth Holzschuster
Darren Sharry
Dennis Howard & John
Sharpin & Trish Field

ANNEXURE NO. 1 - Media Release

date

NSW leads national mobile plant safety campaign

WorkCover NSW will lead Australian and New Zealand workplace safety authorities in a campaign targeting mobile plant in the construction industry from 5 February 2007, NSW Minister for Commerce, John Della Bosca, announced today.

“High-risk construction sites and associated road works, as well as commercial and housing estate developments, will be targeted in the two-month national campaign,” said Mr Della Bosca.

Workplace safety inspectors will visit more than 600 worksites in Australia and New Zealand, with approximately half of these in New South Wales,” said the Minister.

The campaign will be conducted in all Australian states, except Tasmania and the Northern territory.

“Although incidents in which persons are struck by moving plant are not as numerous as other incidents on construction sites, they are more likely to result in serious injury or death.

“Incidents involving moving plant are one of the top three causes of fatalities in the NSW construction industry,” he said.

“The campaign will comprise a balance of information, assistance and compliance activity aimed at educating the industry and minimizing health and safety risks associated with mobile plant or vehicles used in civil construction work

“WorkCover inspectors will focus on safety risks in and around work sites, including safe work systems, public safety, access and egress, and impact barriers,” said the Minister.

Special attention will be paid to the use of heavy mobile plant, such as bulldozers and bitumen trucks, in night road works.

“Inspectors will give employers practical advice on maintaining the controls necessary to ensure heavy mobile plant operations comply with their safety obligations,” said the Minister.

Printed material distributed will include the Code of Practice, Moving Plant on Construction Sites and information on the requirements for traffic control.

“It is vital that employers and contractors in the construction industry consult with their workers to develop systems of work and procedures that will reduce fatalities and serious incidents involving mobile plant,” said Mr Della Bosca.

The decision to mount the campaign was made at the May 2006 Heads of Workplace Safety Authorities (HOWSA) meeting, and is part of a continuing effort to support the National OHS Strategy through development of a consistent approach to workplace safety.

ANNEXURE NO. 1 - Page 2

In NSW injuries and fatalities are at their lowest level in 18 years.

Guidance material, including Codes of Practice, is available from WorkCover at www.workcover.nsw.gov.au or by calling the WorkCover Assistance Service on 13 10 50.

Media contact:

ANNEXURE NO. 2 - Introduction Letter

25 January 2007

Dear Sir/Madam

NATIONAL MOBILE PLANT IN THE CIVIL CONSTRUCTION INDUSTRY JOINT PROJECT

Please find attached an Information Sheet in regard to the National Mobile Plant in the Civil Construction Industry Joint Project. This campaign will focus on the safety of persons working with or adjacent to mobile plant on commercial and civil construction projects including roadwork.

The project will commence in February 2007 and run for a period of eight weeks, with night and weekend inspections also being conducted.

Enquiries regarding this project can be directed to Dennis Howard, Coordinator, Mobile Plant in the Civil Construction Industry Joint Project, (02) 9598 3339.

Yours sincerely



Dennis Howard
Coordinator
Mobile Plant in the Civil Construction Industry
Joint Project Coordinating Committee

NATIONAL MOBILE PLANT IN THE CIVIL CONSTRUCTION INDUSTRY JOINT PROJECT

Australia's Heads of Workplace Safety Authorities have agreed to run the third of a series of national compliance campaigns aimed at improving the construction industry's capacity to manage safety in the workplace. This campaign will focus on the safety of persons working with or adjacent to mobile plant on commercial and civil construction projects including roadwork. Previous campaigns have focussed on falls from heights and asbestos removal.

The campaign will run during February/March 2007 when at least 640 visits will be undertaken in Australia and New Zealand by workplace safety inspectors from:

- ACT WorkCover
- Workplace Health & Safety Queensland
- WorkCover NSW
- SafeWork South Australia
- WorkSafe Victoria
- WorkSafe Western Australia
- Department of Labour, New Zealand

During the campaign, inspectors will focus on risks in and around the work site, including safe work systems that maintain the separation of mobile plant and people. Inspectors will also check compliance with safe work methods statements, public safety, access and egress and secondary issues such as dust control and sun protection.

Inspectors will utilise an appropriate balance of advice and information to assist relevant parties throughout Australia and New Zealand to meet their respective legal obligations. Instances of immediate risk or other non-compliance will result in appropriate enforcement action.

In New South Wales, Inspectors will also be conducting visits on weekends and nights on major road resurfacing works.

Advice on the use of mobile plant in the construction industry is available from WorkCover and includes the Code of Practice for Moving Plant on Construction Sites, guidance notes and copies of *Occupational Health & Safety Regulation 2001*. You can get copies from your nearest WorkCover office or by downloading them from the website: www.workcover.nsw.gov.au

Further advice to improve health and safety at your worksite may be obtained from your industry association or trade union. The WorkCover Assistance Service can be contacted on 131050.

Dennis Howard

Coordinator
Mobile Plant in the Civil Construction Industry
Joint Project Coordinating Committee

DATE 22nd December 2006



ANNEXURE NO. 4 - Site Report Sheet
Mobile Plant in Civil Construction - Site Report Sheet

Inspector(s)		Record No.	Date of Inspection	Number of Employees on site:	
Site Address:			Employer/Controller's Name:		
Employer/Controller's Head Office Address:			ABN:	Telephone:	Fax:
Contact Person	Position	Telephone/Mobile No.	Reason for Visit: <i>Tick the appropriate box</i>		<input type="checkbox"/> Complaint <input type="checkbox"/> No: <input type="checkbox"/> Link to Project
Resource Kits issued to:			Main language spoken by employees if not English		
<input type="checkbox"/> Employer ___ Number		<input type="checkbox"/> Employee ___ Number	No. of workers		Yes/No

CONSTRUCTION INDUSTRY SECTOR - Tick the appropriate sector

- Civil Work Only
 Excavation work only
 Road Maintenance
 Industrial Construction

TARGET ISSUES: PRIMARY AREAS	N/A	Compliant	Not Compliant	Improvement Notice	Prohibition Notice	Verbal Directions	Penalty Notice	Compliance Notice	Warning Letter	Further Invest. reqd.
System of work to prevent workers being struck by mobile plant used in civil construction										
System of work to prevent workers being struck by moving road vehicles adjacent to work sites										
System of work to prevent risk to pedestrian and/or public safety adjacent to work sites										
Vehicle movement on site procedures adequately communicated, ie Induction & tool box talks, etc.										
Site Safety Management Plan in place/adequate										
Plant condition satisfactory following visual inspection, ie log books, faulty alarms, oil leaks										
Adequate traffic management/control plans										



ANNEXURE NO. 4

Mobile Plant in Civil Construction - SITE REPORT SHEET

TARGET ISSUES: SECONDARY AREAS	N/A	Compliant	Not Compliant	Improvement Notice	Prohibition Notice	Verbal Directions	Penalty Notice	Compliance Notice	Warning Letter	Further Invest. reqd.
Noise exposure policies and procedures adequate and in place										
Sun protection policies and procedures adequate and in place										
Airborne dust and particulates protection policies and procedures adequate and in place										
Qualified Traffic Controller on site										
Risks of falls at same level due to unsafe access and egress and/or housekeeping issues (NSW only)										
Plant (Age of Plant)										
Compliance for Certification										
Additional Issues inspected								N/A	Yes	No
Workers comp issues (NSW only)										
WC Certificate of Currency expiry/issue date details correct?										
WC Certificate of Currency industry classification correct?										
WC Certificate of Currency declared employees reasonable?										
WC Certificate of Currency declared wages reasonable?										
WC Certificate of Currency from licensed insurer?										
Joint visit with CIB officer: Name	CIB done	Referral	Yes/No	Comments						

ANY OTHER COMPLIANCE ISSUES - CAUSAL FACTORS

Reasons Given for Site Condition/Hazards Present	√	Comments
Lack of Supervision		
Lack of Training		
Inadequate procedures or communication		
Non English Speaking Background		
Age or condition of equipment		
Availability of equipment		
Availability of labour		
Lack of knowledge of law		
Safety costs		
Scheduling of work, eg push by principal/client		
Other		

PLEASE RETURN SHEET TO PROJECT COORDINATOR

ANNEXURE NO. 5 - Identified Hazards

HAZARDS IDENTIFIED ACROSS TARGET AREAS

INTERACTIONS ACROSS TARGET AREAS	NO.
Safe Work Method Statements adequate for purpose and site specific	92
Plant condition satisfactory following visual inspection, ie faulty alarms, oil leaks, lack of regular maintenance	74
System of work to prevent workers being struck by mobile plant used in civil construction	55
Other - Lack of amenities; lack of record keeping in log books; electrical testing and tagging; ladder access; inadequately fenced excavations; lack of signage.	48

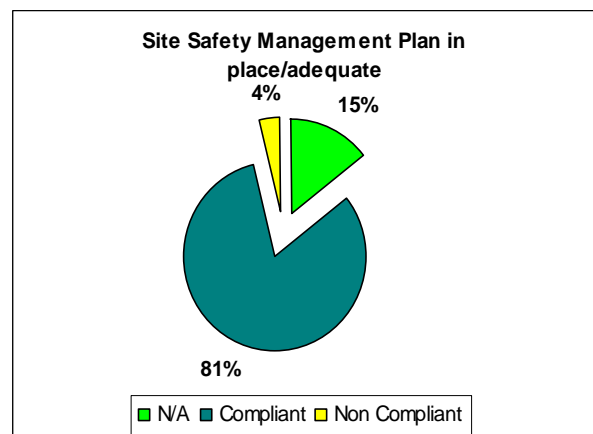
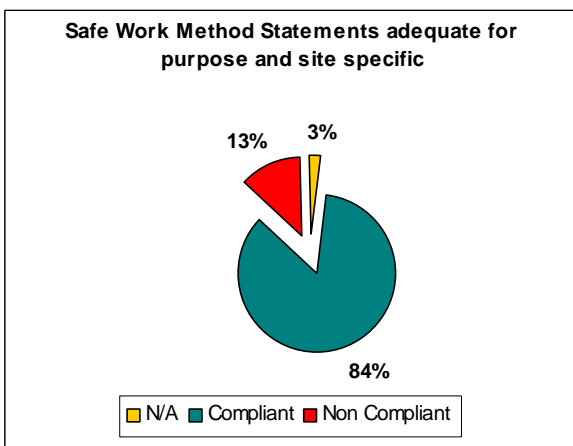
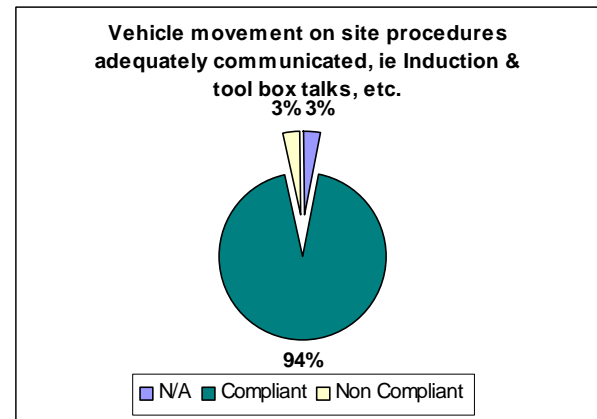
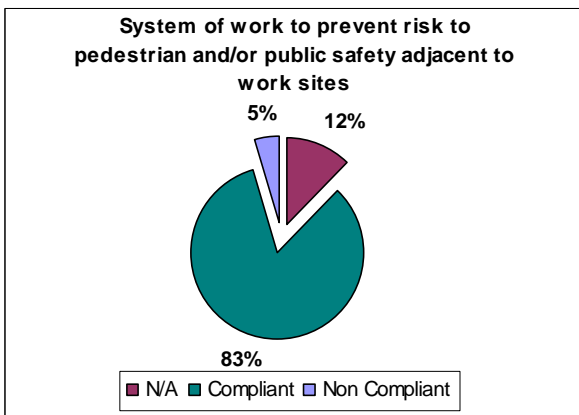
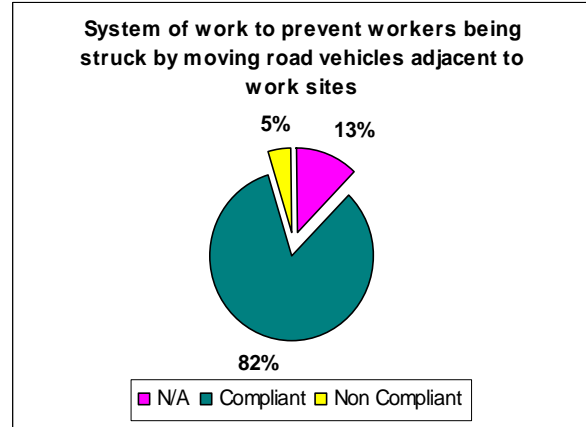
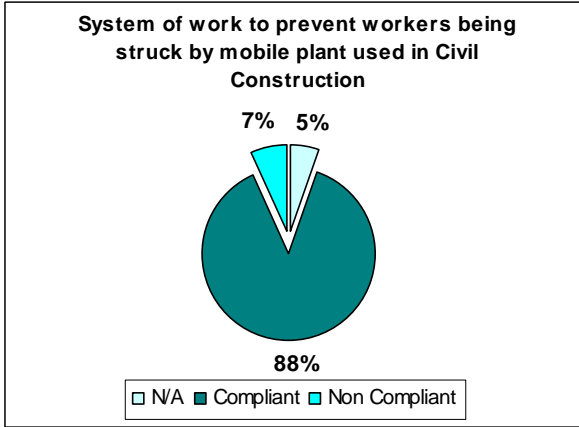
ANNEXURE NO. 6 - Causal Factors

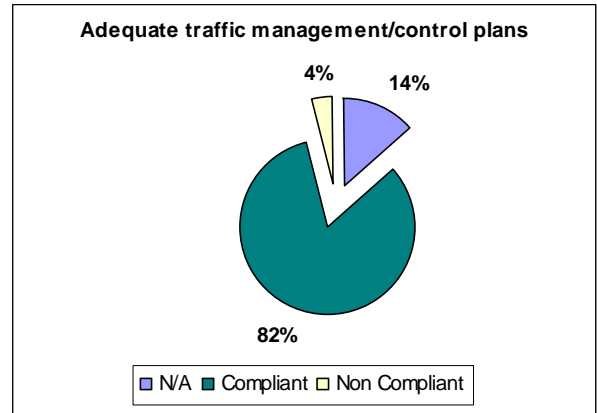
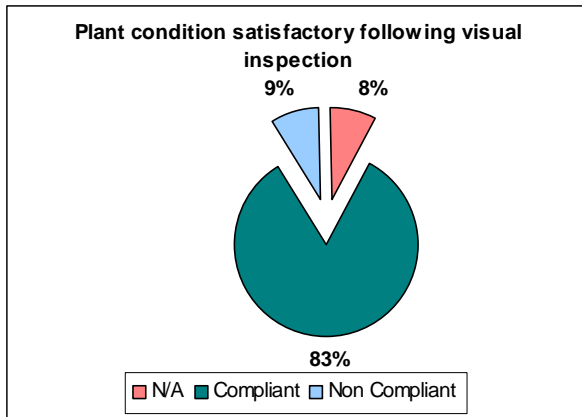
CAUSAL FACTORS IDENTIFIED

CAUSAL FACTORS	NO.
Lack of knowledge of the law	65
Inadequate procedures or communication	49
Age or condition of equipment	29
Lack of supervision	28
Lack of training	22
Scheduling of work	19
Availability of Equipment	15
Safety costs	13
Other	35

ANNEXURE NO. 7 - Compliance Across Target Areas

PRIMARY TARGET AREAS





SECONDARY TARGET AREAS

