



CFMEU SUBMISSION IN RELATION TO THE REVIEW OF PART 9.2 of the OCCUPATIONAL HEALTH AND SAFETY REGULATION 2001 RE: CERTIFICATES OF COMPETENCY FOR FORMWORK AND THE OPERATION AND USE OF EXPLOSIVE POWER TOOLS



Tower Collapse in Lake Cargelligo 22 October 2002, two killed.

CFMEU SUBMISSION IN RELATION TO THE REVIEW OF PART 9.2 of the OCCUPATIONAL HEALTH AND SAFETY REGULATION 2001 RE: CERTIFICATES OF COMPETENCY FOR FORMWORK AND THE OPERATION AND USE OF EXPLOSIVE POWER TOOLS

Introduction

The CFMEU submits that there should be no consideration by WorkCover NSW and the NSW Government to abolish Part 9.2 of the Occupational Health and Safety Regulation 2001. Formwork failures, in particular, cause death and serious injury. To abolish and/or water down the regulation in anyway will place in danger the lives of NSW building and construction workers.

The CFMEU also wishes to express its extreme disappointment that the premise upon which the review of this section of the Regulations is the following statement found on page 7 of the discussion paper “*it can be argued that Part 9.2 of the Regulation may be seen as duplication*”.

The CFMEU rejects such a notion in its entirety. It is also disappointing that a discussion paper should be framed in a manner which places stakeholders, who support existing and long standing, stringent occupational health and safety regimes and standards in a position of having to defend what we have, rather than placing those who are less supportive of such occupational health and safety standards in a position whereby the need to justify why there should be any change.

Overview of the Formwork Industry

Formwork/Falsework is one of the most dynamic sectors within the construction industry undergoing constant change in technology and as a result is also one of the most volatile when assessed as a high-risk industry. One has to look no further than the New South

Wales Industrial Relations Commission (IRC) or the Chief Industrial Magistrates Court (CIM) where the findings in industrial matters reveal the true nature of this industry sector, the words dynamic and volatile is a constant descriptor. The following points adequately describe the undercurrent driving this industry sector and the need for constant vigilance when it comes to ensuring the health, safety and welfare of persons working in this industry and those associated with it:

- Formwork constitutes approximately one third of the total cost of building a high-rise concrete structure.
- NESB persons constitute approximately 67 percent of all persons employed in the Formwork Industry sector resulting in significant barriers to good communication, instruction and training where safety is concerned (Australian Bureau of Statistics 2005).
- Formwork and concrete placement is the benchmark by which developers, builders and contractors measure the progress of a project and associated construction progress payments.
- Construction progress payments are based on the placement of concrete to the finished formwork (completion of floors).
- The formwork industry is driven by productivity, constant desire to reduce cost and the industry culture subordinates safety to profit resulting in a high frequency of injury.
- Formwork undergoes constant change in the ongoing effort by builders and developers to cut costs associated with construction.
- Pressure to reuse materials which may be degraded or overused.

Harmonisation generally

The CFMEU also considers irrelevant, in assessing the merit of a regulation, the fact that NSW is the only state to provide such a regulation. The NSW Government has publicly stated that it prides itself on the standards of occupational health and safety achieved in NSW and in being the leader in the field. Therefore, where other states have failed to take

action to legislate in areas, they should be brought up to NSW standard, not NSW to consider a reduction of its standards to meet other states in the pursuit of “harmonisation”. Harmonisation cannot, and was never intended to be, a race to the bottom.

Further as detailed below the other States’ approach is clearly failing.

Increased fatalities in the construction industry

In the *Statistical Report of Notified Fatalities July 2006 to June 2007* it is reported that there has been a 16% increase in the number of fatalities for the period 2006-2007 than in 2003-2004.¹ Further, that the workplaces primarily engaged in construction account for the largest number of notified fatalities,² with trades persons and labourers recording the second and third highest numbers of fatalities by occupation.³ Falls from heights accounted for 13 of the 28 fatalities associated with the construction industry.⁴

Working from heights is an inherent part of formwork erection and dismantling. These results are disturbing and reinforces to the CFMEU that there needs to be more regulatory rigour than less. The CFMEU is also concerned that to remove a regime for competency in relation to formwork and explosive power tools will compound the issue. Formwork failure causes death and serious injury.

QUESTIONS 1-3 OF THE DISCUSSION PAPER

Question 1 -Stakeholder comment is sought on the costs associated with the training and assessment for Certificates of Competency for formwork and explosive-powered tools.

¹ *Statistical Report of Notified Fatalities July 2006 to June 2007 p4*

² *Statistical Report of Notified Fatalities July 2006 to June 2007 p5*

³ *Statistical Report of Notified Fatalities July 2006 to June 2007 p7*

⁴ *Statistical Report of Notified Fatalities July 2006 to June 2007 p11*

The CFMEU believes that the cost associated with the training and assessment for Certificates of Competency for formwork and explosive-powered tools is not prohibitive and the benefit of having competent workers carrying out formwork far exceeds the costs to business. We also have regard to the submission of the Construction Safety Alliance who also submits that the costs associated are minimal.

Formwork/False work

The only cost to individual is a fee for assessment. Candidates for assessment do not have to leave worksite as assessments are carried out on site with minimal disruption to ongoing work. An assessor is generally able to observe performance of required tasks as part of normal work, minimising lost productive time. Some non-work time is involved in completing the exam paper, and where required practical tasks are not part of current work some non-productive time is also involved. Where gaps in knowledge are identified, training to bring up a person to the required competency level can also be carried out on site. The whole process is much more time efficient compared to having to undertake training and/or assessment off site.

Explosive Power Tools

Training and assessment for up to 12 candidates can be completed in 1 day. This process can be conducted either on site or at an external training venue. The training and assessment process does involve loss of productive time as a cost, and a training/assessment fee payable by the individual. Such payment would be applicable whatever the method of training and assessment.

Question 2-Stakeholder comment is sought on any safety improvements within the construction industry that you consider are attributable to Part 9.2 of the Regulations

Question 3- In reference to this option stakeholder comment is sought on whether:

- **the current system is effectively meeting its objectives of achieving safe workplaces, reduced injuries and minimal regulatory burden for employers and workers; and**
- **the net benefit to the community is currently outweighing the costs associated with maintaining the existing system.**

ANSWER: The CFMEU supports strongly the maintenance of the existing Part 9.2. It is meeting these stated objectives and provides a net benefit which outweighs a minimal cost.

Formwork/Falsework

The Dangers associated with formwork- examples

There are many examples over the years of formwork failures which have caused injury and death. Contrary to the assertion on page 7 of the WorkCover discussion paper, the CFMEU is strongly of the view that Regulation 9.2 has contributed greatly in reducing the number of deaths and injury due to formwork failure.

Common dangers associated with this industry sector include:

- Failure to adequately design the formwork/falsework leading to displacement and collapse.
- Failure to provide design and formwork documentation as prescribed by Clause 233 of the OHS Regulation 2001 and Australian Standard 3610 *Formwork for Concrete*. (see *WorkCover (Inspector Carmody) –v- Mastersteel, Formwork Assembly collapse 1998, CIM*).

- Failure to provide geotechnical analysis of the load-bearing soil supporting the foundations and footings resulting in displacement and collapse of formwork assembly.
- Failure to provide adequate footings and bracing for formwork assembly leading to formwork failure (See *WorkCover (Inspector Carmody) –v- Tableform Australia P/L, IRC*).
- Failure to provide adequate access, fall protection and training for works in high-strutting areas of formwork assembly erection (see *WorkCover (Inspector Carmody) –v- Mindgrove Pty Ltd, CIM*).

These cases stand as a reminder of why it is crucial that those carrying out formwork in all its facets are fully competent, including formwork carpenters and labourers. Further, faulty formwork can kill, as we saw in Lake Cargelligo in 2002.

There has been considerable judicial comment which further highlights the dangers associated with formwork and reinforces the need for those carrying out the work to be competent and for this to be properly regulated.

WorkCover Authority of NSW v Lend Lease Interiors Pty Ltd [1989] NSWIR Comm 1

This case involved the prosecution of Lend Lease Interiors for breach of s15 of the *Occupational Health and Safety Act 1983*, for failing to provide adequate scaffolding, and failing to ensure that scaffolding supporting the load of level 7 of the of a building, the Merino Centre, prior to concrete being poured. This caused level 7 of the building to collapse. Ten employees were injured. Evidence was given that the engineer had instructed site foreman and other employees on site that extra support was needed. The work was not undertaken and a major collapse occurred. His Honour Justice Fisher commented that:

“My conclusion is that there was a grave and serious failure with life threatening consequences to workmen on level 7, to ensure adequate communications to on-site

supervisors concerning the structural integrity of the floor and that either nothing had been done or what had been done was essentially inadequate. The seriousness of such acts or omissions may vary with the seriousness of anticipated consequences. It is difficult to conceive a more central or grievous error than to commit workmen to the initial stages of a concrete pour, well above ground, with no floors formed beneath and working on a floor which so lacked structural stability that it collapsed in the initial stages of a pour” (p3).

This collapse led to the CFMEU and others in the industry to call for better regulation around formwork and which ultimately led to a number of reforms, including what ultimately became Part 9.2.

Inspector Carmody v. Kevin Patrick Power [2002] NSWIRComm 286

This case involved the prosecution for breaches of the then s50 of the *Occupational Health and Safety Act 1983*, following the collapse of formwork that occurred on 28 October 1999. The weight of wet concrete when poured triggered the formwork collapse. Two workers were injured as a result of the incident. The incident could have caused many more workers to be killed, as the collapse required 20 workers in the immediate area to run away from the collapsing section of formwork. In the CFMEU’s view it was fortunate that nobody was killed. His Honour Justice Marks stated:

“Whilst it is clear that the ultimate cause of the accident was contributed to by a number of factors, there can be no doubt that Tableform’s Australia Pty Ltd was in breach of s16(1) and the breach was a serious one. Insufficient attention had been given to the nature of the ground where the legs of the formwork on the western boundary had been located. In addition there was a failure to adequately investigate and assess overall nature of the ground where the legs of the formwork on the western boundary had been located” (para 12).

In a related prosecution of a director of Wiltara Constructions Pty Ltd in *Inspector Carmody v Frankel* [2002] NSWIR Comm 333, His Honour Justice Marks stated that:

“As I observed in Power there was a number of contributing factors to the incident which gave rise to these proceedings. The primary cause was the failure of the formworking company to adequately design and construct the formwork, particularly having regards to some of the ground upon which it was to be erected”.(para 9)

The Company *Wiltara Constructions Pty Ltd* went into receivership and the director went into bankruptcy. In both cases, whilst there were engineering defects, the parties also failed to properly inspect formwork, to take remedial action, failed to implement appropriate measures to ensure the formwork was safe and failed to supervise persons on site during the concrete pour. Further there was a failure to properly assess the risk, assess load bearing capacity, and ensure formwork complied with Australian standards, failure to inspect the formwork and have it certified and failure to ensure that formwork complied with the WorkCover Code of Practice with respect to the erection of formwork, just to mention some of the failures identified. Both cases raised serious questions about the competency of those charged with carrying out the works.

Inspector Chamberlain v. Proform Systems Pty Ltd [2005] NSWIR Comm 403

Another aspect of formwork, is the risk to persons as a result of working from heights, This prosecution followed an incident where a worker, Mr Kos, was seriously injured when, on 16 July 2001, he was lifting a piece of formwork plywood and fell 5.4 metres through the penetration, suffering serious injury. In summary, it was found that there was no fencing or other means of securing safety of persons working at a height in excess of 1.8 metres, no adequate inspection of the lift shaft before the task of dismantling and clearing formwork commenced, no adequate risk assessment and no specific work method statement had been generated. Mr Kos was from a Non English Speaking Background (NESB) and he claimed he did not understand the site induction training and

answered 5 out of 9 questions incorrectly and he “held no relevant certification of competency in relation to the work he performed”(p4). Her Honour Justice Backman found that:

“the risk to safety which confronted Mr Kos was the risk of falling a considerable distance by reason of the presence of an unmarked and inadequately secured large penetration. The existence of this penetration was sufficiently concealed so that it presented a hidden trap to an unsuspecting worker. It also had the potential to cause serious injuries...Adding to the overall objective seriousness of the offence is the inescapable conclusion that as a result of the defendant’s failures and Mr Kos’ fall through the penetration, his injuries could have been extremely serious, even fatal. In the event Mr Kos suffered serious injuries as a direct result of the defendant’s breach” (p 7).

The Defendant was fined \$80 000.

WorkCover Authority v Daoud [2006] NSWIRComm 37

This was a prosecution of the director of Formbrace Contractors Pty Ltd. On 14 September 2001, employees of the company were injured when the formwork on which they were standing collapsed, causing them to fall to a lower level and injuring electrical contractor employees who were also working on the site.

The circumstances are graphically described in the decision as follows:

On 14 September 2001 Jozo and Stipo were constructing formwork together at the Premises. The portion of the formwork on which Jozo and Stipo were working was cantilevered formwork. Jozo was standing on a piece of formply on the cantilevered portion of the formwork and was preparing to cut the piece of formply decking on which he was standing. Jozo had in place a string line to mark the cut on a piece of

form ply when Jozo requested Stipo flick the string line onto the formply to mark the cut. But, as Stipo stepped onto the formwork deck to stand alongside Jozo, the cantilevered section of the formwork, including the piece of formply on which Jozo and Stipo were working collapsed (incident).

As a consequence of the collapse, both Jozo and Stipo fell, together with the formply sheets and other formwork components, approximately 2.8 metres onto the concrete floor of the next level below.

Further, at the time of the formwork collapse, Cross and Taha were walking under the portion of the formwork deck on which Jozo and Stipo were working. Taha had passed the point of collapse but, Cross was hit by Jozo, Stipo and the falling formply.

Stipo struck the concrete floor in an area where starter bars for the lift shaft wall protruded from the concrete floor of the next level below and was trapped or jammed between some the starter bars. Jozo also landed on the concrete floor of the next level below adjacent to the area in which the starter bars for the lift wall were protruding from the concrete floor.

As a consequence of the subject incident:

- Jozo sustained strains and sprains of his left shoulder, elbow and wrist, and bruising on the inside of his right leg;*
- Stipo sustained fractures to both feet, a fractured right wrist and fractured ribs;
and*
- Cross suffered muscular pains in his back.*

Investigations after the incident disclosed that Jozo, Stipo, Cross and Taha received site induction training, and a general safety instructions booklet, from Boulderstone on their first days of employment at the Premises. Stipo actually

received his induction from Boulderstone on the morning of 14 September 2004, immediately prior to the incident, as it was his first morning on this site.

Stipo received no site specific training, information or instruction from Formbrace. Also, Stipo received no training, information or instruction on the safe construction of formwork at the Premises. On the morning, prior to the collapse, Jozo was shown a plan of the work and discussed how to do the work with Mallozzi, the Formbrace foreman with responsibility for supervising the area in which Jozo and Stipo were working at the time of the subject incident. Stipo was directed to plumb and cut the formply deck for the lift-well wall. The discussion was not documented.

Jozo did not work on the construction of the cantilevered portion of the formwork prior to the morning of the subject incident. Jozo did not lay headers, the joists (or timbers), nor the piece of form ply that collapsed.

Further, at the time of the subject incident, the formwork deck on which Jozo and Stipo were working exceeded the height of one formwork frame fitted with standard fittings [ie standard frame with a standard foot and a standard u jack capable of being adjusted to a height of 1.8 metres]. The subject formwork deck was being erected on top of standard frames fitted with additional frames, including “telescopic inners”, that enabled the formwork deck to be constructed at a height of about 3 metres above the level of the concrete floor on which the frames were standing.

Neither Jozo or Stipo were provided with fall protection, or fall arrest equipment, such as a harness. Neither Jozo or Stipo were instructed to wear fall arrest equipment while working at heights over 1.8 metres at the Premises.

Neither Jozo or Stipo were wearing fall arrest equipment at the time of the incident.

No perimeter edge protection was provided by Formbrace in the area of the incident as the area was still being erected.

Neither Stipo, nor Jozo had been provided with a work method statement for the construction of formwork at the Premises and in particular, neither Stipo nor Jozo had been provided with a work method statement for the erection of the cantilevered formwork in the vicinity of the lift-well wall on which they were working at the time of the subject collapse.

Further, Jozo and Stipo were not instructed by Formbrace to erect barriers or signage preventing persons from entering the vicinity of the formwork construction. 26. Investigations after the incident disclosed that the cantilevered portion of the formwork deck was neither adequately nailed, nor supported in accordance with the requirements of AS 3610 – 1995 being the Australian Standard with respect to the erection of Formwork for Concrete. In particular, the cantilevered portion of the formwork deck that collapsed projected approximately 900mm beyond the last line of frames towards the area in which the wall for the lift-well was to be formed up (p4-7).

His Honour Justice Marks when onto state:

“The starting point for the assessment of the appropriate penalty is the objective seriousness of the offences which, the defendant has conceded, were committed by the company. As is clear from the agreed statement of facts and other evidence tendered in the proceedings, the incident occurred in circumstances where the part of the formwork deck on which the company’s employees were working was not adequately secured, and there was a cantilevered section which created inherent instability. Furthermore, the employees concerned were working at a height of about 2.8 metres and had not had the benefit of any induction to any system of safe work methods used by the company. In addition, there were no barriers or warning signs to warn or exclude other persons who were working beneath the formwork from entering that particular area.

I agree with the submissions made on behalf of the prosecutor that, objectively, the breaches of sections 8(1) and 8(2) of the Act by the corporation were serious ones. Indeed, counsel for the defendant sensibly conceded as much”.

Fatality at Lake Cargelligo

Perhaps one of the most graphic reminders of the dangers involved in formwork and the catastrophic consequences of work being undertaken without proper training, qualification and supervision is the double fatality at the construction of a water tower on 22 October 2002 at Lake Cargelligo. Craig McLeod and Anton Beytell were killed and other workers. Scott Wood, Michael Abel and Stephen Malathone were seriously injured when formwork for a suspended ceiling collapsed during a concrete pour. A photo of the collapsed formwork is shown on the cover of the CFMEU submission. Attached is a summary of the Coroner’s findings.

The Coroner’s Report states that Detective Senior Constable Williamson gave evidence that:

“..the person directly responsible for maintaining safe working practices at the Lake Cargelligo/Tullibigeal Water Reservoir construction site was Anton Gerhati Beytell the sole owner/director of BGA Projects Pty Ltd, now deceased. It is apparent that safe working practices were breached and not maintained to the legislative requirements (Australian Standard 15/76)” (p2)

The reason for the collapse, inter alia, was the failure to provide sufficient formwork/scaffolding for the construction. The Coroner referred to comments made by Inspector Dan Leavy:

“The removal of components from the lower parts of the falsework (formwork) an omitting them from upper parts further substantially undermined the strength of the

structure. The horizontal members served a dual purpose – they provided the only means of bracing the structure and they reduced the effective length of the vertical members...removing the bracing greatly reduced the falsework’s ability to resist horizontal loads that were caused by eccentric loading wind loads or live loads such as those generated by persons or material moving on the formwork deck” (p5-6).

The Coroner went on to note:

“I agree with Counsel Assisting the Coroner, Mr Hoy, that “it was almost a game of fiddlesticks where one is moving pieces of scaffolding from one place to another and perhaps holding one’s breath that it doesn’t fall down”. Sadly in this instance it came crashing down”(p6).

Inspector Leavy gave his opinion about the possible causes of the collapse as follows (p6):

- failure of proprietary prefabricated component due to overloading, such as standard of screw jack;
- failure of inappropriate tube of coupler joint;
- failure of one of the site-fabricated components;
- a combination of these.

From the Coroner’s Report there were also other various serious systemic problems in the management of the project which allowed the dangerous situation to develop largely unchecked, but the absolute disregard for occupational health and safety standards, the CFMEU considers, was the ultimate cause of the collapse and its tragic consequences.

These real examples show starkly the dangers inherent in formwork. In order for such cases not to increase in number, Part 9.2 of the Regulations should be retained in its current form as part of the regime regulating formwork. The CFMEU believes that the regulation operates to reduce the number of such incidences and that without the system

of competency that the regulation provides such incidences will increase and more lives may be lost or more injury sustained.

The CFMEU considers that an added desirable outcome is as described in the discussion paper; that employers are influenced to implement greater safety measures as was evidenced in the above cases where the Courts took into account steps taken by defendants to improve their safety systems following a serious incident. Such an effect should not be underestimated in its capacity to reduce injury and save lives.

WorkCover NSW OHS Intervention in the Formwork sector of the NSW Construction Industry following the Lake Cargelligo Formwork Assembly Failure in 2002.

WorkCover NSW conducted an OHS Intervention project into the formwork sector across the State of New South Wales following a catastrophic failure of the formwork assembly on a NSW Department of Commerce, Government Project on 22 October 2002.

The findings of this intervention project were provided to the CFMEU following a request at a Construction Industry Reference Group meeting in 2003. The brief report provided by Ms Patterson's Office on behalf of WorkCover NSW provides the following findings with respect to the safety performance of the formwork industry sector:

- 23 percent of all formwork projects inspected did not have the required Certificate of Competency for the works undertaken or many of the formworkers had not undertaken this mandatory training.
- Most sites could not satisfy the legislations requirements for adequate design and formwork documentation with 14 percent of sites failing to produce any design or formwork documentation.
- 30 percent of sites had defective componentry, particularly falsework structural supports.

- 23 percent of sites failed to provide adequate fall protection where working at heights was observed.
- Drop stripping was observed as a not uncommon industry practice, considering that this unsafe practice was banned with the introduction of the Australian Standard 3610 in 1981.
- Other issues highlighted in the report included; lack of bracing to both shore frames and shore props; failure to provide structural engineering certification prior to the placement of concrete to suspended formwork; unprotected reo-bars and poor levels of information, instruction and training in relation to Task Specific Induction.

It is interesting to note that many of the failures outlined above are addressed in the Formwork and Falsework course covered within the Construction Industry Carpentry Course which has been run successfully at Lidcombe TAFE since its introduction in 1988 following the Darling Harbour catastrophic Formwork Assembly collapse in that same year.

It is very clear from the data gleaned from the WorkCover report into the findings of that organisations intervention in the NSW Formwork Industry sector that there are many fundamental occupational health and safety issues which remain unaddressed to date.

WorkCover NSW committed to the CFMEU in July 2003 that it would target the formwork industry sector within the following two years with the primary focus on designers, manufacturers and suppliers of formwork/falsework as well as engineering certification and formwork certificates of competency. It is with much disappointment and regret that the CFMEU observes that WorkCover NSW has not undertaken this commitment; it may also be fair to observe in hindsight and given the current circumstances where we find ourselves defending existing legislation that WorkCover NSW had no intention of meeting this obligation.

Scaffolding

The competency regime is also beneficial in relation to scaffolding standards and competency in and around scaffold of formworkers. The discussion paper at Section 2.2 refers to the skills that must be demonstrated to obtain a certificate of competency that relate to scaffolding, namely:

- The erection & use of different types of scaffolding
- Use of tubular metal scaffolding. Its connections, fittings &
- Methods used in the construction of scaffolding

The use of scaffolding is becoming more prevalent in false work. Examples of this currently are the construction of the Bankstown Square car park (Multiplex), the international airport car park (Abigroup) and the new international airport extension (Bovis Lend lease) to name a few. There are many other examples. Some of these jobs are using a combination of conventional formwork and scaffolding.

The certificates of competency are in three parts- basic, intermediate and advanced. The first 2 levels {basic & intermediate} require various levels of supervision and there is a requirement for handover certificates signed by an advanced ticket holder for all scaffold works completed.

Further, there is at present a scaffolding standard being developed with the participation of major stakeholders, demonstrating the use of full scaffold decks for the erection and dismantling of scaffold. This is supported with safe work methods designed to minimise any risk of a fall from height. The growing use of scaffold for falsework is increasing due to modern building design. Scaffold also provides flexibility and efficiency in providing safe work platforms, access and egress for formworkers and other construction workers.

Formworkers are necessarily exposed to using scaffold in some capacity, requiring a need to have a level of competency as part of their formworking duties. Thus competency as attained and assessed under Regulation 9.2 is crucial.

Further, the scaffold industry has benefited immensely from the training system based on competency and more recently from the ICAC inquiry into the discriminatory practices of assessment and the issuing of scaffold tickets. The practice of reducing essential components from the competency training paved the way for a tidal wave of unskilled workers applying dangerous and life threatening work practices that was undermining the scaffold sector, forcing prices up as result of the need for additional supervision and a true deficiency of qualified scaffolders. Such experience should not be forced upon the formwork sector.

It is considered that the retention of the current system, where WorkCover controls the appointment of RTOs and individual assessors for these unique licensing areas, maintains a necessary degree of integrity and control. WorkCover should continue to control the standards required of assessors and RTOs, with the option to audit the assessment methods and records as necessary.

Additional Benefit

Further, the CFMEU considers that trainers/assessors (as accredited assessors of WorkCover) not only assess candidates for competency in Formwork/Falsework and Explosive Power Tools, but also ensure that during the training and assessment process, safe work methods are observed and practiced on site in accordance with the relevant Code of Practice. This is very important in ensuring the participants are able to appreciate how the Code of Practice operates in a practical environment.

Formwork/Falsework

In the process of conducting on site training and/or assessments, the assessor's presence on site reinforces the application of the Code of Practice. Prior to conduct of any training or assessment, a Safe Work Method Statement is prepared in consultation with all individuals. Individuals become conscious during the process of the need to work safely in accordance with the COP and the specific SWMS.

Views as canvassed from other industry participants

The CFMEU in putting together this submission canvassed the views of many industry participants. Other reasons, with which we agree, were given to support the retention of the current regime as follows:

- Outcomes of the projects WorkCover has undertaken over the years strongly suggests that there is a high level of non compliance with the erection of formwork.
- Over the past two decades the use of persons from NESB as formworkers has become quite high.
- Because of the level of English spoken by workers in the formwork industry is low communication is poor therefore the standard of non compliance in terms of safety has been reflected in initial inspections carried out in past WorkCover formwork projects.
- Australian Standard 3610 {Formwork} is far too complicated for workers to generally comprehend, however the Code of Practice for Formwork both condenses the information and delivers it in a "plain English" format that is understandable and user friendly.
- To repeal the Code of Practice for Formwork and the licensing of Formworkers, is totally unacceptable given the number of formwork collapses in NSW is not decreasing.

- Over the years WorkCover has prosecuted a number of formwork companies for collapses that have resulted in workers being seriously injured or killed for example the Merino Centre, Darling Harbour and other as detailed in this submission.
- When one analyses the high level of non compliance in the formwork industry at present it would be hard to imagine an improvement in the standard of safety and the level of compliance if the licensing requirement were withdrawn.
- The knowledge imparted to future formworkers at TAFE and other teaching institutions is essential as it increases person's skills and awareness in terms of safety and accident prevention.
- Historically the causes of formwork accidents and collapses are usually a result of workers simply not knowing, i.e.:
 - incomplete frame bracing
 - Supports or propping too far apart
 - Inadequate sole plates
 - Foundation improperly prepared
 - Defective formwork componentry
 - Defective timbers (bearers joists and plywood)
 - Lack of sufficient ties (both lateral and diagonal)
 - Lack of fall arrest systems in place for erection and dismantling formwork
 - Drop stripping
- There is a general concern by different sectors of the construction industry (commercial and industrial builders) that they are seen to be vulnerable in terms of prosecution if they allow persons to carry out formwork on their sites without appropriate certificates of competency to erect formwork or to use an EPT.

Explosive Power Tools (EPT)

The CFMEU equally supports the retention of the current regime with respect to Explosive Power Tools.

There is considerable current evidence that the misuse of EPTs continue to cause significant harm worldwide, including in Australia, New Zealand and the United States. Information downloaded from the web is attached. It is indisputable that the use of EPTs is high risk work.

In Western Australia, on the website of the Department of Consumer and Protection a number of examples of injuries reported by Worksafe WA cause by EPTs are set out as follows:

“WorkSafe records show that nailing machine accidents are invariably preceded by unsafe use of equipment. It is the responsibility of employers to ensure that workers are adequately trained and that safe work methods and equipment are used.

The following accidents happened in W.A.

Workers were handling a nailing machine unsafely when it discharged. A man was injured and was left with a permanent disability.

A nailing machine was being used to attach structural members to a timber building frame with steel connector plates, when the carpenter positioned the tool awkwardly. A nail ricocheted from the steel plate and penetrated to its full depth in his assistant's head. The assistant recovered.

An operator was walking along a timber framework fixing a series of nails, while holding the job with his left hand. With the trigger depressed, he was using the muzzle guard pressure to activate the tool when he accidentally nailed his left hand to the job.

A nailing machine operator was working with his assistant on a repetitive job, also using the muzzle guard pressure technique. The assistant accidentally bumped against the machine, and it discharged, seriously injuring him”.

In Queensland, on the Department of Employment and Industrial Relations website it is reported that:

“In Queensland there have recently been several incidents where workers have been injured by a nail discharged from a nail gun. There have also been several similar incidents in other states.

The incidents involved both individual operators and other workers located near the operator of the nail gun. It appears that the nail guns discharged a nail as a result of the muzzle of the nail guns hitting parts of the body while the operator's finger was on or near the trigger.

In most of the incidents the nail guns were able to be actuated by using contact trip actuation (bump fire or bounce fire). This mode of operation allows nails to be driven by holding the trigger in the firing position and just contacting the muzzle against the work piece. Another mode of operation is the sequential actuation mechanism, which requires the sequential operation of the muzzle (against a work piece) followed by the actuation of the trigger before a nail is discharged”.

In its recommendations the QLD Department of Employment and Industrial Relations recommends, inter alia:

“All workers who use nail guns should be trained in their safe use. Training should address the operation of the nail gun, personal protective equipment (PPE) requirements and any other specific requirements stated in the manufacturer's manual. Additional training information may also be available from training organisations, industry associations or manufacturers. An example of precautions that should be taken are:

- place signage to warn that a nailing tool is in use*
- where possible, exclude workers not directly involved in the nailing work*
- operator and workers within the exclusion zone should use eye protection, hearing protection, and additional PPE specified in the operator's manual and required by the site rules”.*

The South Australian Government on its Safe Work SA issued Hazard Alert 78 in August 2007 due to:

“...several recent incidents where workers have been injured by nails accidentally discharged from a nail gun. This type of incident appears common throughout Australia”.

In the United States it is reported that 37 000 patients were treated annually with nail gun related injuries between 2001 and 2005 and these injuries are increasing. See attached information from the United States’ *Centers of Disease Control and Prevention*.

The experience in other Australian States should strongly suggest that the other States have not got it right and should be forced to introduce regulation consistent with Part 9.2 and that New South Wales should not, in the pursuit of “harmonisation”, drop its standards to that of other Australian states.

The CFMU has also canvassed the views of other industry participants in relation to the need to maintain the current licensing for explosive power tools. The reasons given for retaining the current system are many, as follows:

- Colour blind persons may use wrong charges in E.P.T. resulting in accidents.
 - Persons unqualified may shoot too close to the edge of materials resulting in the nail or projectile (fastener) flying off in a different direction.
 - The use of EPTs by persons who have little understanding of the English language resulting in dangerous or incorrect use.
 - The reason the license was first introduced was due to the effect that both workers and members of the public were killed or injured (Greenway Arcade Parramatta, late '70's - see Coroner's recommendations).
 - With the skills shortage in Australia at present persons from NESB. would be using EPT's without the training necessary (licensing) to perform the task safely.
- NOTE: The NSW Construction Industry has a large contingent of workers who

generally speak very little English therefore one would have to concede that more simple publications in various languages need to remain available by WorkCover eg Codes of Practice, Guidelines.

- The use of firearms in NSW requires licensing because of the obvious danger of the potential injury or death to humans. A firearm fires a projective and so does and EPT. Both have the ability to kill and must be licensed. They are considered as firearms by the NSW Police.
- The explosive charges used in some EPTs are nearly equal the strength used in some small bore rifles.
- Some explosive power tools (various models and types) have the ability to be able to initiate the projective into "free flight mode".

Further benefits

As for Formwork/Falsework, the preparation of a SWMS by the assessor in consultation with the individual candidates deliberately engages them in the safety issues of these tools. While it has been stated that “*many of the older type high velocity direct action tools are no longer manufactured*”, the observation is that many are still in use, underlining the need to reinforce the safety requirements to all users.

The current system for both Formwork/Falsework and Explosive Power Tools is effectively meeting objectives. As previously stated the presence of a WorkCover accredited assessor on site “encourages” more attention to the COP and safe work methods than might otherwise occur. Workers are assessed under real working conditions, and the process of developing SWMS in consultation with the candidates engages them in considering safety issues. Any reinforcement in this regard is seen as positive.

The present system is more cost efficient in terms of cost and lost productivity than formal training by an RTO. The current assessment first system either finds a person

competent, or identifies a skill gap where short, intensive training can be undertaken to improve an individual's skill level to a point where they can be assessed as competent.

The individual cost of the current system (even to a proposed \$65 per photo card) is not considered excessive, and if this fee is calculated as a cost-recovery exercise by WorkCover, then the positive benefits of the continuing reinforcement of safety issues in these hazardous areas is seen as far outweighing the costs.

The CFMEU strongly submits that option 1 should be taken by WorkCover NSW that is, maintaining Part 9.2.

Questions 4, 5 & 6

The CFMEU rejects entirely options 2 and 3. In answer to questions 5 and 6 the CFMEU submits that WorkCover should not delete Part 9.2 NSW Certificates of currency but should maintain Part 9.2 for the reasons set out above. To do anything other than retain the current regime would be a retrograde step, resulting in the deskilling of formwork carpenters and labourers and reducing safety standards and performance.

It will be insufficient for workers in carrying out formwork to merely complete an industry based unit of competency in terms of demonstrating competence for formwork and explosive power tools without the need of a certificate of competency being issued by WorkCover. This will particularly be so for formwork labourers who have not undertaken formal training such as an apprenticeship. There will be no objective assessment of competency, therefore, there would be no certainty that workers will hold the necessary competencies.

For employers it will make difficult their capacity to meet their obligations under the Occupational Health and Safety Act and Regulation. They can more readily meet these obligations by engaging properly qualified, assessed and recognised personnel. Further, they must positively take steps to ensure that workers gain the necessary competency.

In terms of Option 2 the CFMEU does not believe relying on a “competent person” standard alone is sufficient. A person could be deemed “competent” without being subjected to a WorkCover accredited assessment process, their knowledge and skills not being tested by a rigorous and subjective assessment process. Furthermore once a person is deemed competent under Option 2, they could then supervise training of others.

The CFMEU considers that Option 2 departs from the requirements prescribed in the regulations; that being, a person carrying out Formwork/Falsework or operating an Explosive Power Tool must undertake appropriate training and assessment that leads to a qualification recognised by WorkCover. Option 2 would open up the possibility of a “competent person” being nominated by an employer as a supervisor, and the incorrect use of the log book system.

The CFMEU is also concerned that the log book system is being, and will be, abused and is being used for other than properly registered trainees. There is a practice in some areas of the construction industry of workers working under a log book system and being used to do Formwork/Falsework activities. In many cases workers are carrying out Formwork/Falsework activities under the log book in perpetuity; a practice that not only contravenes the OHS Regulations but also negates the very system WorkCover in consultation with industry put in place to ensure that this field of work is carried out by qualified people.

The guidelines accreditation system put in place by WorkCover through a process of industry consultation is designed to provide an assessment and training process to enable workers, many of whom are experienced, to obtain the Formwork/Falsework Certificate of Competency i.e. the WorkCover F&F ticket.

A move away from the current system to either Option 2 or Option 3 would give rise to questions regarding the current regulations. Neither of these options is supported.

The trainee receiving on-the-job training must be directly supervised. Direct supervision means that a supervisor is in a position to directly intervene in the event of unsafe operation of the equipment i.e., the supervisor should be in sight and sound of a trainee work-related activity. Instruction and guidance in the operation must be provided.

The regulations make clear that the use of the log book system relates only to registered trainees engaged in a recognised training program and properly supervised; the log book system was not intended to allow builder's labourers in perpetuity to do formwork/falsework activities without the appropriate qualification.

Part 9.2 in combination with OHS Regulation 2001 (301) in relation to Formwork/Falsework states: a person must not do any kind of work to which this part (i.e. Part 9.2) applies unless the person holds a certificate of competency in relation to work of that kind or is a trainee.

The practice engaged in by some areas of the industry, whereby Formwork/Falsework is carried out under a log book system, contravenes the regulations unless that person is a properly registered trainee.

Section 9.2 Division 1 gives definitions relating to Explosive Power Tools, Formwork/Falsework, trainees supervisor and unqualified persons. In this division it is stated that a recognised course of training means a course of training that is recognised in accordance with clause 302(2).

Clause 302 (2) says “a course of training is recognised in relation to a person if, when the person began the course, the course was recognised by the guidelines issued by WorkCover in relation to the training of trainees”.

For clarification the following describes what the WorkCover Guidelines state: - “A trainee will need to undertake a recognised course of training which can be either formal training (eg. at TAFE or Registered Training Organisation, or on- the-job training under

strict supervision by a certificated person or an experienced and competent person nominated by the employer.

There are concerns that the required levels of on-the-job supervision are not/will not be met. The result is a diminishing of safety controls and work standards. It is believed that this would be further exacerbated in the case of Option 3, where no assessment or certificate of competency would be required. If this option were selected, a serious decline in safety and work standards in these two license areas would result

These comments equally apply to option 3, the deletion of Part 9.2 in full.

It is also essential that certificates are renewed to ensure that competencies are being retained.

Any removal of certificates of competencies will impact on the skill qualifications of workers opening a mammoth gateway for unsafe and dangerous work practices that will result in more accidents, injury and death. There will also be an increase in unscrupulous operators using unqualified personnel.

Construction costs will increase similar to the scaffold sector during this period of deregulation as a result of extra supervision and labour required to compensate for the deficiency of skill which ultimately substantially reduces productivity. The construction industry and more importantly Australia is in demand of more skilled labour not an industry that that reduces this.

Recourse to options 2 and 3 will not benefit workers, employers or safety in the building and construction industry as a whole. It will only benefit WorkCover NSW in divesting it of its current important role and obligation. This is a most undesirable course.

Our nation is in a grip of a skills shortage and rather than address this unique situation by introducing measures that in time will overcome these shortages i.e. expansion of

apprenticeship schemes and making apprenticeships more attractive and attainable, a proposal to alter and/or remove Part 9.2 of the Regulations will further deregulate and deskill a section of the building and construction industry and contribute to the deskilling of our nation.

The CFMEU strongly believes that the removal of the state-based certificate of competency system will result in a reduction of health and safety standards within the construction industry.

Conclusion

The CFMEU supports wholly the retention of Part 9.2 of the *Occupational Health and Safety Regulation 2001* certificates of competency for formwork and the operation and use of explosive power tools. Although these are only NSW licences they are seen as benchmark in competence by industry and the other States should adopt regimes consistent with NSW's current standards.