

## **Working Paper 28**

# **A Responsive, Contextual and Networked Approach to Enforcing Safe Design of Plant**

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## **Acknowledgement**

This working paper was informed by interviews conducted with staff of the South Australian OHS regulator (Workplace Services), the Victorian OHS regulator (Worksafe) and manufacturers of workplace plant in those two states. The author gratefully acknowledges the insights and experience contributed by participants, but takes full responsibility for the ideas and suggestions made in this paper about possible future enforcement policy and strategy in relation to safe design and plant.

## Introduction

This working paper builds on a previous article, *Regulating the safe design of plant*<sup>1</sup> which discussed the importance of eliminating and controlling risks to health and safety ‘at the source’, as early as possible in the life cycle of plant, machinery and equipment, in order to overcome OHS problems for those who use, maintain or otherwise work with that plant downstream. The earlier article identified some options for improving the regulation of safe design under the Australian OHS statutes and regulations. These options included establishing the responsibility of all upstream parties who have real control and influence over plant safety, to ensure comprehensive risk management and compliance with defined OHS outcomes. Proposals also emphasised the importance of examining and testing plant (including user trials and consultation); technical assessment and design verification of high risk plant by a competent, independent third party; and providing quality information to procurers of plant, to enable development of safe practices for those who work with that plant. The use of files to transfer key, technical information between plant producers, independent assessors and regulators was also canvassed, and application of a safe design mark as a basis for declaring conformity.

With these proposals in mind, this working paper explores options for suitable and effective enforcement of safe design regulation; that is, for enforcing ‘upstream’ in the phases of procurement, design, manufacture, import, supply, installation, erection and commissioning of plant.<sup>a</sup> Enforcement is defined as all dealings between OHS regulators and duty holders.<sup>2</sup> To date, Australian OHS regulators have, in the main, taken an ad hoc approach to enforcing upstream. While it might be argued that there is simply a need for more attention to upstream parties by OHS regulators, a crucial question is what form such enforcement action should take. The central argument in this working paper is that strategies to enforce safe design obligations must take account of contextual factors in the operating environment of upstream duty holders which impact upon compliance, and that these obligations should be enforced ‘responsively’, with enforcement mechanisms and strategies that are tailored to the level of compliance of duty holders, and using ‘networked’ approaches designed to harness key influences upon upstream duty holders.

Responsive enforcement is an approach increasingly recognised by regulators as offering a more credible and optimal enforcement strategy, by incorporating a judicious mix of ‘persuasive’ (compliance) and ‘deterrence’ (punishment) approaches,<sup>3,4,5</sup> rather than relying on either persuasion or deterrence alone. The persuasive elements emphasise preventing rather than punishing contraventions of the law through information, cooperation, conciliation and negotiation between regulator and regulatee. In contrast, deterrence elements involve detecting offenders with sufficient frequency and punishing them with sufficient severity so that they will perceive that the costs of non-compliance outweigh the perceived benefits, and will make greater efforts to comply with the law.<sup>6</sup> Two types of deterrence are distinguished: specific deterrence where a particular firm is punished for non-compliance and, as a result, is less likely to repeat the violation; and general

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<sup>a</sup> Note that the Australian OHS statutes do not currently include specific responsibilities in relation to procurement or commissioning of plant.

deterrence where a population of firms is persuaded to comply by being made aware of sanctions against others for non-compliance.<sup>7</sup>

Under a responsive approach to enforcement, with an escalating sanctions regime, the regulator begins by attempting to persuade the regulatee to comply voluntarily by providing guidance (oral or written). If compliance is not forthcoming, the regulator escalates the enforcement response through a range of sanctions requiring compliance or designed to deter non-compliance. This might include the use of notices, enforceable undertakings, restrictions on supplying products or prosecution. In essence, responsive enforcement is a dynamic<sup>8</sup> approach which involves a chance for the regulator to foster cooperative compliance when this is possible, but to move on to more demanding requirements and ultimately applying deterrent penalties for persistent and serious non-compliance. The rationale for such an approach is that, on the one hand, it avoids the problem that enforcement by strong penalties alone may produce a culture of regulatory resistance amongst obligation bearers and, on the other hand, it reduces the likelihood of non-compliance if regulators permit law breakers to go unpunished.<sup>9,10</sup>

So, what enforcement mechanisms and strategies might be applied, responsively, to enhance OHS outcomes upstream? This working paper begins by discussing current mechanisms, strategies and practices applied by Australian OHS regulators to enforce compliance with OHS law, observing that, in the main, OHS enforcement policy and practice has been designed for and applied to employer and worker duty holders. While some of these approaches may have application in enforcing upstream duties, there is a need to rethink enforcement in relation to safe design and the upstream obligations. Thus, this working paper proposes some possible new directions for enforcement policy and practice, taking account of important contextual factors which influence upstream duty holders and therefore need to shape how OHS regulators oversee and engage with upstream parties.

## **Current Approaches to Promoting and Enforcing OHS Compliance**

### **Persuasion and guidance**

Fostering compliance through persuasion (information, cooperation, conciliation and negotiation) is a central element of contemporary Australian OHS enforcement policy and practice. For OHS regulators persuasion typically involves awareness raising, and production and dissemination of guidance or information. At a wider community level persuasion may involve mass media campaigns although, to date, such campaigns have focused on the role of employers and workers in addressing OHS ‘in the workplace’, rather than the interface with designers, manufacturers and other upstream parties. Information and guidance is provided in both print and electronic forms (via the world wide web),<sup>11,12</sup> typically summarising legal obligations in a fairly general manner or issuing hazard alerts in response to incidents.<sup>13,14,b</sup> OHS regulators may also provide education and training programs (or work with third parties such as OHS consultants or industry associations to provide these), although training of upstream parties has been minimal.

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<sup>b</sup> The websites of Australian OHS authorities provide hazard alerts and other guidance (see <http://www.nohsc.gov.au/OtherRelatedSites>).

Regulators may also engage in face-to-face discussion with duty holders. However, in recent years there has been a move away from Australian OHS inspectors providing specific advice about how to resolve OHS problems, to any duty holders.<sup>15</sup> Indeed, this is part of a much wider trend as in many countries inspectorates do not have the resources or detailed knowledge to act as advisers.<sup>16</sup> For all of these reasons, under current arrangements, all duty holders must determine for themselves what laws exist in this area and how to comply, or track down suitable outside expertise to advise them on these matters.

Nonetheless, OHS regulators have a vital part to play in promoting understanding of the role of different parties in ensuring safe design and construction of plant, and in promulgating and developing understanding of specific legal obligations. There is a challenge to consider how persuasion and guidance initiatives can be designed to foster genuine improvements in OHS upstream. There is a danger that broad awareness raising campaigns, or guidance briefly summarising legislation or the risk management process, will not sufficiently enlighten upstream parties about their role. In particular, such a generic approach is unlikely to foster the comprehensive identification and elimination or control of specific hazards that is needed to ensure that plant, from the earliest phases of its life, is safe for those who will ultimately use, operate, maintain or otherwise work it.

Developing a deeper understanding of addressing OHS at source requires, as discussed in the article *Regulating the safe design of plant*,<sup>17</sup> more direction to duty holders who are not fully attuned to the ways in which their decisions impact on OHS and may overlook key risks. That article proposed a shift in the style of OHS regulations to prescribe essential health and safety requirements, in the form of precisely defined performance outcomes, as one strategy for providing greater focus and direction about OHS problems requiring attention and OHS outcomes to be achieved. Such essential requirements can then become the basis for more informative guidance materials or checklists to prompt upstream parties to address specific hazards. A complementary approach is to make greater use of technical standards as one means of addressing specific problems in plant design and construction. These strategies are a means of providing more specific guidance to a wider range of upstream parties.

Alternatively, there are more intensive ways of engaging with upstream parties to ensure that OHS problems are comprehensively defined and OHS outcomes achieved with particular types of plant. Some proactive projects of this type have been undertaken by OHS regulators pursuing OHS problems upstream, in high risk industries. Examples include the design of equipment used for sheep shearing and crutching (NSW WorkCover), transport vehicles and horticultural equipment (SA WorkCover), health and aged care equipment, and forklifts (Victorian WorkCover).<sup>18,19</sup> Such activities typically involve a more in-depth way of working with duty holders. These industry-based projects provide the kernel of a new approach to engaging with upstream duty holders. Some ways of refining and extending this approach are discussed later in this paper, in the section *Focused interventions*.

### **Inspection**

As well as some proactive projects, the day-to-day work of OHS inspectors primarily involves inspection and associated follow-up. This includes observation of

workplaces, the work environment, plant, substances and work practices as well as documentation of procedures, action taken to address OHS matters, and so on. It might also include auditing of systematic OHS management. Inspectors' work is underpinned by a range of powers including entry to premises, powers to investigate, and access to records and other documentation.<sup>20</sup> These powers may be applied in inspections in relation to any of the statutory obligations, including upstream ones.

Inspections may be conducted on an ad hoc basis (for example in response to a complaint or an inspector working his/her way through workplaces in a particular locality), although increasingly OHS regulators are targeting their inspection work. With the principal focus of inspections being 'workplace' health and safety, the emphasis (especially with limited inspectorate resources) tends to be matters concerning the roles of employers and workers, rather than problems that arise 'outside the workplace' with a designer, manufacturer, supplier, importer or other upstream party. However, in the process of inspecting workplace health and safety, problems may be identified relating to unsafe design or construction and these issues may be raised with upstream duty holder(s).

There is a challenge for OHS regulators to tailor their inspections to assess attention to OHS upstream. The focus of such inspections, their timing and the basis for targeting are important considerations.

#### *The focus of upstream inspections*

Inspections with upstream parties might inquire into how prescribed processes are carried out (such as hazard identification, risk assessment and control, information provision, testing and examination), or they might check relevant documentation of these. The rationale for this approach is that systematic processes, and how well they are carried out, is an indication of a firm's arrangements for addressing OHS on an ongoing basis. However, there is cause for concern that even if hazard identification and risk assessment are undertaken, action in relation to risk control may still be inadequate. Moreover, safety information may be developed and provided but it is the quality of this that really matters. As such, processes do not necessarily reflect OHS outcomes and ultimately these are the most critical concern. Uncontrolled or inadequately controlled risks, or poor quality information, indicate weaknesses in attention to OHS upstream, which need to be uncovered and are best addressed by both dealing with the specific OHS problem and identifying how the firm's capacity and commitment to address OHS effectively needs to be developed in the future.

As discussed, the article *Regulating the safe design of plant*<sup>21</sup> proposed that OHS regulations for plant should incorporate essential health and safety requirements. As well as offering some direction to upstream duty holders, this approach would also provide a valuable mechanism for focusing inspections, of plant designs and plant itself, on key hazards to be addressed upstream, and outcomes to be achieved in relation to hazard elimination or control, the content and quality of product safety information, and the nature of testing and examination of plant.

In addition to enhancing inspection upstream by focusing on essential requirements for plant, the regulator's involvement with employers can also be designed to reinforce the need for procurement practices that influence OHS action upstream. Employers, especially larger ones, are in a position to influence the OHS practices of

their suppliers and contractors, who are generally responsive as their survival depends on maintaining the business relationship. This supply chain pressure can be fostered by employers and, when necessary inspectors, ensuring that OHS is effectively addressed in procurement procedures. In order to raise the profile of safe design, procurement should be a core focus of inspectors' audits of OHS management systems, ensuring that employers, as procurers, require attention to OHS by their suppliers. For example, this could include inspecting purchasing procedures, contracts procuring specific items, design briefs and tender documents to ensure that they specify OHS requirements. A focus on risk management in procurement also provides a basis for employers (and inspectors) to trace OHS problems upstream and follow these through with the responsible firms.

#### *Timing of upstream inspections*

Ideally, inspections will be proactive, and not only follow upstream after an injury has occurred. This means aiming inspections as early as possible in a product's life cycle. However, there are questions to resolve about the timing of inspections aimed at identifying non-compliance. For example, can the duty to ensure safe design be judged during the design phase or is it necessary, and/or more useful, to wait until the plant is manufactured? Or until it is actually placed on the market? Or until it is in use? To some extent these are abstract questions as in many cases plant of the same or similar type, from the same designer/manufacturer/importer/supplier will be both in development and in production, as well as in circulation or use, because the 'producer' has been involved in making plant of this type for a period of time. Thus enforcement can generally be informed by experience with an existing product range, without having to wait until injury occurs.

#### *Targeting upstream inspections*

Approaches to targeting currently employed by OHS regulators typically involve identifying priority organisations by OHS performance, usually judged by workers' compensation claims experience, or by the high risk nature of an industry or the work performed.<sup>22,23</sup> Causes of occupational fatalities may also be targeted. Analysis of workers' compensation and fatalities data has revealed that poor design factors are a key source of death and serious injury.<sup>24</sup> This provides justification for the allocation of resources to proactive enforcement with upstream parties. However, these data reflect past, rather than current or future OHS problems and typically lack detailed information about design problems. Alternative or at least supplementary data sources are therefore needed. Some alternative ways of identifying priorities or targets for upstream inspection are canvassed in the section *Establishing priorities and working within industries*, later in this paper.

Whatever arrangements are used, enforcement priorities should not be determined on criteria such as ease of accessing the target group. For example, local manufacturers may be easier to identify than importers. Equivalent problems should receive equivalent attention, whether they originate locally, interstate or are imported from overseas. Ideally, targeting would be based on criteria of severity of risk. However, in situations where lack of specific information about plant, or firms producing or supplying it, precludes this a program of engagement with a randomly selected group of firms, and promotion of this activity, amongst a wider group, has merit. This approach is discussed further in the section *Plant surveillance*, later in this paper.

A final point to make about inspections is that an additional form of action, to supplement and reinforce limited inspectoral resources, is for OHS regulators to develop strategies to require self-inspection or self-audit by firms.<sup>25</sup> These methods have the potential to assist duty holders to ‘learn how to comply’ and to ‘self-regulate’. The approach may also include reporting the outcomes of inspection to the regulator as part of a process of monitoring improvements in action taken to address OHS upstream.

### **Investigation**

Investigations are generally carried out when a significant incident occurs involving a fatality, serious injury or another high risk situation, which may not involve injury, such as collapse or overturning of high risk plant. The process of investigation may identify problems relating to unsafe design or construction and the matter may be addressed with an upstream duty holder.

A weakness of current practice is that upstream factors are not routinely investigated and pursued. A further weakness is the orientation to significant incidents. The goal of enforcement in relation to upstream duties should be to prevent plant that is unsafe in its design or construction from being placed on the market or being put into use, or to seek its modification before injury occurs if the plant is already in use. This demands investigation of potentially unsafe plant and follow up action to prevent supply or ensure that remedial action is taken. (These matters are discussed further in the section *Prosecution and penalties* below, and further in the section *Reforming upstream enforcement policy and practice*, later in this paper).

### **Improvement notices and mechanisms to remedy OHS problems**

The OHS statutes in all jurisdictions provide for an inspector to issue an improvement notice.<sup>c</sup> The notice is a formal direction to remedy a contravention of the Act or regulations.<sup>26</sup> An improvement notice may be issued to any person responsible for a contravention and as such an improvement notice could be issued to a designer, manufacturer, importer, supplier or other upstream party.

However, in practice, notices have rarely been used in relation to upstream obligations. In part, this reflects OHS regulators’ emphasis on enforcement of employer and worker obligations ‘at the workplace’. However, there are also some practical issues that inspectors perceive might impact on the use of notices for upstream duties. For example, if an inspector’s notice requires that a particular OHS problem be remedied on a particular type of plant, will the inspector need to establish that the duty holder has taken steps to resolve the problem on all such items supplied? If so, the inspector will need information about customers in order to require that the supplier remedies the safety problem on all of these items. This raises questions both about how notices should be framed and how to determine when a notice has been complied with. Although inspectors might develop strategies to overcome these problems, in practice some may favour negotiating with suppliers to modify as much of the plant supplied as possible, rather than issuing a notice requiring this.

A further concern expressed by some inspectors in using notices in relation to design or manufacture issues, in particular, is ‘not knowing where we are going to go with

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<sup>c</sup> Under WHSA (Tas) s 38(1) this is not called an improvement notice but the effect is the same.



the problem'. That is, identifying a problem with the design or construction of particular plant does not mean that the solution is obvious. It may involve some period of research and development by duty holders to come up with a solution. Inspectors may be sympathetic to this difficulty and prefer to work cooperatively with parties that seem willing, rather than imposing a notice which requires a set timeframe for compliance. An alternative would be to allow a longer time frame for complying with the notice.

Thus, while there are no legal obstacles to using improvement notices upstream, there are some practical issues for OHS regulators to address in operational procedures, to clarify how and when such notices are used. There is considerable potential for using improvement notices to formalise undertakings made by a duty holder, in negotiation with an inspector, as to how and when an OHS problem is to be resolved. However, in some situations the best course of action might be to require responsible parties to publicise identified OHS problems to procurers and to require that hazardous items are recalled or that remedial action is taken on behalf of plant owners who respond to the alert. The powers of OHS inspectors do not currently extend to requiring this types of action. There is merit in considering legislative amendments to establish a specific mechanism to enable and facilitate recall of hazardous plant or component parts, restrictions on sale or taking action to modify hazardous plant. Such a mechanism exists under the Australian *Trade Practices Act* 1974 (s 65F) which applies to 'goods' supplied to 'consumers ', as defined, but does not extend to all plant used occupationally. The supplier could be required to recall goods within a specified period, disclose the nature of a defect or dangerous characteristic, provide information about the circumstances in which use of the product is dangerous, advise on procedures for disposing of the product or issuing an undertaking to repair, replace or refund the price of the product.

### **Prohibition notices and mechanisms to prevent supply**

Provision is also made, under all of the Australian OHS statutes, for an inspector to direct that an activity (or work) ceases if the inspector believes that there is, or is likely to be, an immediate risk to health and safety (or an imminent and serious risk).<sup>27</sup> While, in principle, a prohibition notice could be issued to a designer, manufacturer, importer, supplier or other upstream party, in practice such notices have rarely been applied in relation to upstream obligations. There are several reasons for this. The first is a temporal issue; it may be more difficult to use a prohibition notice in the design, manufacture or supply phases as an 'immediate' or 'imminent' threat to health and safety is more likely to arise in end use, and hence prohibiting the unsafe situation is less likely to involve an upstream party. However, where plant has been supplied in the past, found to be inherently unsafe, and a manufacturer or supplier continues to produce or supply that plant for use at work, a direction might be given for this to cease.

A challenge for OHS regulators is whether, and if so how, prohibition notices can be used in the context of upstream obligations where a serious danger is identified in the design or the construction of plant, but that danger has not yet been realised in end use or operation of the plant. Arguably, there is a case to amend the Australian OHS statutes to enable prohibition of supply of plant where an inspector is of the opinion that the nature of a threat or the degree of risk to health and safety warrants that prohibition. Such a mechanism is applied in relation to consumer products under the

Australian *Trade Practices Act* 1974 (TPA: s 65B, 65C and 65E) where the responsible Minister may publish a notice in the government *Gazette*, warning of risks and advising of restrictions on supply or use. A mechanism to prohibit supply is probably most appropriately applied for unsafe plant that is likely to be supplied in some numbers.

### **Infringement notices**

Infringement notices (also known as penalty notices or on-the-spot fines) can be issued for offences under OHS legislation in some jurisdictions.<sup>d</sup> They enable quick and easy enforcement<sup>28,29</sup> but should be reserved for clear cut, non-complex offences where the breach is clearly defined in law and the facts are easily verified.<sup>30,31</sup> Nonetheless, it is still important to optimise the preventive value of these fines and there is merit in applying them to matters that have a direct effect on risk control. In regard to the upstream phases, this might include, for example, offences such as producing plant that emits noise, vibration, hazardous substances or other hazards above defined exposure limits. However, it is likely that amendment of OHS regulations would be required to incorporate more of this type of clear-cut performance outcomes or targets.<sup>32</sup>

In determining the most strategic use of infringement notices, a guiding rule is to ensure that there is proportionality between the seriousness of the offence and the penalty imposed. As such, infringement notices should not be a substitute for prosecution in serious or repeat cases of offending. In addition, a mechanism is needed to require duty holders to actually resolve the OHS problem giving rise to a breach, as once an on-the-spot fine is paid, liability for the offence that is the subject of the notice is taken to be discharged. The current practice of some jurisdictions of using infringement notices in conjunction with improvement or prohibition notices provides a mechanism for requiring the necessary preventive action to rectify specific hazards. This approach is equally applicable to requiring preventive action upstream.

### **Design verification and registration**

For certain types of plant designated as 'high risk', Australian OHS law requires verification of the design of the plant. Designs are then registered by the OHS regulator to whom documentation is submitted and the registered design is recognised by other jurisdictions, under mutual recognition legislation.<sup>33</sup> Exactly how design verification is done, for what types of plant, whether technical standards are used as a benchmark for design verification and, if so, which ones, varies between the jurisdictions. However, a point of consistency is the withdrawal of OHS regulators from involvement in verification or design approval processes. The article *Regulating the safe design of plant* suggested some changes to the current arrangements to ensure independence and competence of those performing design verification, and adoption of a list of technical standards to be applied consistently in all jurisdictions.<sup>34</sup> The possibility was also canvassed of a process of technical assessment of plant, rather than verification by reference to documentation, such as design calculations and specifications, alone.

Over and above the arrangements for design verification, there is also a need to consider the role of the regulator in responding to documentation submitted for the

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<sup>d</sup> Queensland, New South Wales, Tasmania, Northern Territory and Australian Capital Territory.

purposes of design registration. At one extreme this can be a ‘rubber stamping’ exercise where documentation is received by the regulator, the regulator ‘believes what they are given’ and a registration number is assigned, without any further checking. Another approach involves an OHS regulator’s plant specialists, usually engineers, checking calculations on designs submitted, focusing on critical structural and mechanical aspects.

An alternative approach, which has the potential to provide more effective scrutiny, is a rigorous program of auditing a randomly selected sample of designs submitted for registration, and assessment of the plant itself if it is already constructed. This would not simply involve an engineer checking computations against technical standards but would require a holistic examination of the plant and its design by a multidisciplinary team which, as appropriate to the plant, might include expertise in engineering, ergonomics or other specialist areas. Such an audit would go beyond the, albeit important, traditional structural and mechanical hazards and would look at noise emission, access and egress, electrical safety, chemical safety, ergonomic matters, and other essential health and safety aspects of the particular type of plant.

Rather than a more limited check of documentation for all plant in a particular high risk category, auditing a sample of plant designs frees up resources for this more rigorous process of examination. However, it is crucial that resources permit audit of a sufficiently large sample so that ‘the message gets around’ that the regulator is actively checking plant design and construction. In the event that audited plant does not meet OHS requirements, the regulator would refuse to provide a registration number and could publicise refusals, with reasons, to make other relevant duty holders aware that the regulator is taking the auditing role seriously. Since such high risk plant cannot be used legally unless it is design registered, the use of that plant would effectively be prohibited until such time as it does comply.

Ideally, thorough verification of designs by competent, independent third parties, together with random, rigorous auditing by OHS regulators would prevent unsafe plant from entering the market and being put into use in the first place. However, as the regulator will not be auditing all designs submitted for notification, it is possible that some plant that is not audited may subsequently be found to have design and/or construction flaws. Moreover, regulators will not always be able to audit plant before it is used; in some cases an audit may be retrospective. A mechanism is therefore needed to enable withdrawal of registration if defects are subsequently identified, and to alert persons submitting designs to that possibility, at the time of registration.

### **Enforceable undertakings**

Enforceable undertakings are included in the Tasmanian, Queensland Australian Capital Territory and Commonwealth OHS statutes, although their incorporation is quite recent and there is little experience with their use. They are also used for a range of offences under the *Trade Practices Act 1974 (Cth)* (s 87B), including product safety matters. Essentially these provisions empower the regulator to accept from a person, a written undertaking about measures they will take to remedy a contravention of the relevant law. If the person contravenes any of the terms of the undertaking, a court may make appropriate orders which might include directing the person to comply, ordering the person to compensate any person who has suffered loss or damage as a result of the contravention, or publishing details of the undertaking.

Enforceable undertakings could be used to commit firms to organisational reforms to address OHS upstream, such as appointing or engaging staff with appropriate OHS know-how and capability, to review and improve a design or modify plant, or to implement a compliance program to manage OHS obligations. The following example of a product safety enforceable undertaking under the *Trade Practices Act* illustrates how such undertakings might be used. An importer of hydraulic trolley jacks was required to commit the firm, by enforceable undertaking, to not supply products that did not comply with mandatory consumer product safety standards for such jacks and to design, implement, maintain and audit a compliance program. The latter was to include embedding a culture of compliance in the company and developing systems to eliminate or minimise the possibility of trade practices contraventions.<sup>35</sup> To have ‘teeth’ such undertakings must be underpinned by arrangements for independent review or audit,<sup>36,37</sup> in order to determine whether they are complied with properly and that the desired outcomes are achieved in regard to plant design and construction.

### **Prosecution and penalties**

Prosecutions are the mechanism for imposing potentially larger sanctions as well as the stigma of criminal penalties. Proceedings may be initiated against any duty holder for breach of an obligation under the OHS statutes or regulations. However, in practice, upstream parties have seldom been prosecuted in Australia.

There are several reasons for this. First, prosecutions are still largely brought in response to serious injuries and fatalities. This ‘event focus’ means, in relation to plant, that the matters investigated tend to involve machinery and equipment that has been in use for some years. Quite apart from practical difficulties of gathering evidence in relation to plant produced some years previously, it is also possible that the plant was designed, made and supplied in the era of previous legislation and/or the time period for initiating a prosecution, if applicable, may have expired. Second, the ‘workplace’ focus of OHS enforcement means that amongst those prosecutions that do involve an upstream obligation, it may be an employer who has designed, made or modified plant for use in the employer’s workplace that is prosecuted.

If, instead of an event focus, OHS regulators ensure that the criteria for launching a prosecution are severity of the risk, regardless of whether death or injury has occurred, and investigate the sources of OHS risks upstream, this approach will open up more possibilities for prosecuting upstream offences, if the severity of the contravention warrants it. Such prosecutions should be targeted at the individuals or organisational entities with real control and responsibility for the contravention.

However, a commitment to launch prosecutions upstream by criteria of risk will not resolve all problems. There are jurisdictional reasons why prosecutions (and other enforcement mechanisms such as notices) are not pursued. In some jurisdictions it is not possible to initiate action under the jurisdiction’s OHS statute against a party who is located outside of that jurisdiction. While it is likely that this will continue to be a problem for plant imported from overseas, the current problems experienced in some Australian jurisdictions, in relation to plant that is simply crossing a border within this country do need to be addressed, by legislative amendment if necessary. For example, if a designer or manufacturer, located interstate, is responsible for producing unsafe plant, the OHS regulator in the jurisdiction into which the plant is supplied should not be limited to taking action against a supplier within the state or an employer who

purchases the plant. Action at the source, against a designer or manufacturer, should be possible.

Another problem concerns the wording of the OHS statutes. The qualification 'when properly used' applies under all of the Australian OHS statutes, although the South Australian statute requires duty holders to take account of reasonably foreseeable forms of misuse. In other jurisdictions, incorporation in the duty of the expression 'when properly used' could mean that it is possible, in at least some instances, to design, make and supply plant that has inherent risks, and to rely on instructions and warnings about the risks as the sole precaution. This is most clearly the case under the Victorian OHS Act (s 24(4)), which provides that plant is not to be regarded as properly used where it is used without regard to relevant or appropriate information or advice about its use. There is clearly a need to amend the Victorian OHS statute in view of the court's interpretation of 'when properly used' in the unsuccessful Victorian prosecutions for supply of unsafe plant. (See *Herless Pty Ltd v Barnes* [1986] Industrial Relations Commission of Victoria in Court Session, Garlick AP, case no 12/1986, 26 September 1986 (unreported); and *Victorian WorkCover Authority v Chem-Mak Pty Ltd* [1999], Melbourne County Court, 1999 (unreported).

However, the expression 'when properly used' this appears to be less of a problem in some other jurisdictions. In *WorkCover Authority of New South Wales (Inspector Mulder) v Arbor Products International (Australia) Pty Ltd* [2001], 105 IR 81, the Industrial Relations Commission (in full session, on appeal) concluded that the qualification 'when properly used' is intended to limit the liability of a supplier where the plant which is supplied is safe. In this specific case, the onus was on the supplier of a wood chipping machine to ensure that the plant was inherently safe before any argument about whether the plant was properly used could be raised, rather than relying on the provision of information in a manual or training of the customer's employees. Other subsequent cases in NSW and Western Australia have made a similar interpretation. (See *Shepherd v Viticulture Technologies (Aust) Pty Ltd*, Court of Petty Sessions, Albany, WA, 2003 (unreported); *National Hire Pty Ltd v Howard* [2003] NSWIRComm 144 at para 5; and *Inspector Wilkie v Kennards Hire Pty Limited* [2004] NSWIRComm 167 at para 25).

In the event that a prosecution is pursued against an upstream duty holder and is successful, a further weakness of the current regime is that the penalties established under the OHS statutes vary quite widely. Until recently the highest penalties available were in NSW where the penalty for a first offence is up to \$550,000 for a corporation or \$55,000 for an individual (or up to \$825,000 for a corporation and \$82,500 for an individual, for a second offence). However, recent amendments to the ACT OHS statute (sections 35C to 35E) establish a maximum penalty of \$750,000 for a corporation (\$150,000 for an individual), where an OHS offence exposes a person to a substantial risk of serious harm and the person was reckless or negligent; or \$1 million (\$200,000 for an individual) where a breach of the duty results in serious harm to a person and the duty holder was reckless or negligent. The lowest penalty for breaches of upstream duties is \$100,000 under the South Australian and Western Australian OHS statutes.

Moreover, quite apart from the level of the penalty, there are criticisms of the fine itself as a sanction.<sup>38</sup> A monetary fine may signal to offenders that offences are 'purchasable commodities' rather than activities or omissions judged by the state to be

intolerable. Fines do not require the offender to investigate the reasons for the contravention, to discipline those responsible, or directly to review and remedy the defects in their management of OHS. Thus there is a case for exploring alternative penalties. Gunningham and Johnstone<sup>39</sup> propose that these penalties might include court-ordered publicity of the outcomes of prosecution; supervisory orders and corporate probation requiring an organisation to investigate the contravention, discipline those responsible, and return a compliance report to the court; organisational reform orders requiring the organisation to report regularly to the court on its efforts to develop a compliance program and reform management of OHS; punitive injunctions requiring the organisation to introduce specific arrangements to manage OHS; community service orders requiring duty holders to carry out an OHS-related project using the organisation's resources; and dissolution of the most egregious offenders. Some alternative penalties are established under the New South Wales OHS statute which enables the court to order publicity or notify certain persons about an offence (OHS Act (NSW): s115) or to require an offender to undertake specified projects for the general improvement of OHS (OHS Act (NSW): s 116).

In summary, prosecution has rarely been pursued with upstream duty holders, although some jurisdictions have taken action in this area. The problems identified here will need attention if prosecution is to be used strategically, consistently and fairly in relation to upstream offences.

### **More of the same or new directions?**

In discussing the various options available to OHS regulators I have emphasised that these mechanisms have rarely been applied in relation to upstream obligations. Fundamentally, there is a need for a greater focus by Australian OHS regulators on upstream parties, consistent with the Australian Workplace Relations Ministers' Council commitment, as made in *The National OHS Strategy 2002–2012*,<sup>40</sup> to eliminate hazards at the design stage. There is a need for awareness raising that alerts upstream parties to their obligations, and guidance that informs and develops their understanding. There is a need to target inspection upstream, applying criteria relevant to an upstream focus, as distinct from the current 'workplace' focus. Existing improvement, prohibition and infringement notices have application upstream but OHS regulators need to determine, strategically, how and when they are applied. Notices may need to be supplemented with mechanisms to facilitate recall, remedial action and prohibition of supply. More rigorous scrutiny is needed of designated high risk plant, before registration of design and use. And strategic use of prosecution should be a realistic possibility, with jurisdictional constraints resolved and consistent penalties applied. This paper has proposed some ways in which these mechanisms could be enhanced to facilitate enforcement upstream.

Moreover, as upstream enforcement has, to date, largely been ad hoc with a limited number of proactive projects undertaken by Australian OHS regulators, an explicit commitment to address upstream obligations is an important first step in reforming the enforcement policies of the OHS regulators. Only some authorities currently do this. Over-committed inspectors with performance targets in other areas are unlikely to be able to find or make the time to pursue issues upstream unless safe design and construction is a genuine priority. An upstream focus will need to become part of the planned and agreed priorities of OHS regulators if it is to receive proper attention.

However, ‘tidying up’ available enforcement mechanisms and applying them upstream more often is not all that is needed. These mechanisms, as refined, will need to be applied within the framework a new, strategic and responsive approach to enforcement upstream in which enforcement is tailored to the level of compliance of particular duty holders. The following section canvasses some possible new directions.

## **Reforming Upstream Enforcement Policy and Practice**

### **Enforcement in context – creating conditions for self-regulation**

In developing new ways to enforce OHS upstream, it is crucial to take account of contextual issues in the operating environment of firms involved in design, manufacture, import or supply, or other upstream functions. It is also essential that enforcement strategies are tailored to the nature of upstream obligations. Engaging with *one* firm that produces or supplies plant that is identified as unsafe, negotiating to redesign or modify the plant, possibly even prosecuting, and hoping for specific deterrence with that firm, and/or more general deterrence by publicity of the action taken and production of hazard alerts, is unlikely to be effective in achieving change. This is not only because this approach involves dealing with one problem at a time, it is also because the capacity to self-regulate in the area of OHS is considerably influenced by ‘external forces’, which include end customer requirements relating to function and operability of plant, requirements of a distributor or other supplier, the price ‘that the market will bear’, and the extent to which the plant supplied is a core product that the business is based upon.

Thus, for firms to be motivated to address OHS upstream, there is a need for an enforced level playing field. Without this, firms may do less in order to keep a product sellable (with regard to cost and function). Even firms experiencing specific deterrence action by OHS regulators may be unwilling to take the necessary steps to make a product safe, if they are aware that other plant of the same type (from other manufacturers, importers or suppliers) is not the subject of enforcement action. Alternatively, they may develop safety solutions or modifications as an optional extra or choice within the product range, while keeping a less safe but more saleable product on the market. In short, market forces prevail and if OHS is to be taken seriously, consistent intervention is required for particular types of plant. This might include OHS regulators engaging with producers, importers and suppliers of that plant, as well as influential procurers, in order to establish a ‘level playing field’ for preventive action.

In the operating environment of plant producers and suppliers there is a paradox that regulation (including enforcement), applied consistently, can create conditions for more effective self-regulation by firms. Without it, the capacity of firms to self-regulate in the interests of OHS is constrained by their competitors (including local producers and importers), and by the demands of procurers or others in the supply chain. All of this suggests the need for a different approach to enforcement that involves ‘action across the board’ as distinct from enforcement action focused on individual firms, one at a time.

### **Establishing priorities and working within industries**

A discussion of enforcement upstream can also not ignore the reality that Australian OHS regulators have limited resources. It is inevitable that such enforcement effort will need to be targeted in some way. Currently, workers' compensation claims data is the predominant source of information used by OHS regulators for targeting. To some extent this might also be used to examine injury causation upstream, especially if comprehensive text fields in claims records enable regulators to determine underlying factors that contribute to injuries. But even with better data collection it is still likely that only where plant of a particular type is produced and supplied in large numbers, with design or construction flaws that give rise to consistent types of incidents (such as such instability of forklifts causing vehicles to tip over, or absence of guarding on augers causing injuries in maintenance or cleaning),<sup>41,42</sup> that clear priorities for upstream enforcement action will be revealed through analysis of claims data.

Thus alternative methods are needed to identify priority areas for attention. Some possibilities lie in the fact that most Australian OHS regulators now plan and organise their field inspection services in industry programs. This industry focus provides opportunities for identifying 'upstream' problem areas through hazard surveillance initiatives conducted as part of planned and systematic inspections, development of industry knowledge of problem areas by field staff, and consultation with employers, unions, plant producers and suppliers to the industry. Voluntary notification of unsafe plant, by workplace purchasers and users, can also be encouraged to assist in identifying plant designed, manufactured or supplied in an unsafe condition. Ideally, the criteria for the regulator selecting plant to target for upstream enforcement would be based principally on the hazards present and the potential severity of injury or illness that could arise. Importantly, priorities identified through this approach need not be confined to mass produced plant, but could extend to custom made plant within certain categories of machinery and equipment that is widely used in an industry; for example food handling, processing and cooking systems used in the food industry.

The virtue of industry programs is that more in-depth knowledge can be developed about OHS problems affecting the industry. The 'down side', with the current structure and practice of OHS regulators' industry programs, is that pursuing OHS problems upstream can mean identifying a problem in one industry program and then 'handing it over' to another industry program to follow through. For example, unsafe machinery identified by inspectors working in the hospitality industry might need to be followed up by the manufacturing industry program if the OHS problem arises in manufacture of the plant, or by the transport and storage industry program if the problem involves importers or suppliers. Thus an inspector with the initiative and interest to pursue an issue upstream must then 'let it go' to be taken up by the 'correct' industry program in the regulator's structure.

Critical to the approach proposed here is working with key players within industry programs and not transferring between them. The key is that the 'problem plant' is procured and used within that industry. This approach provides continuity in following an issue through, makes efficient use of staff resources rather than involving multiple staff from different teams in the same issue, and overcomes the problem of a second industry team giving less priority to an issue as it is not within their performance targets.

### **Tailor-made, networked strategies**



Most crucial is the opportunity that working upstream, within an industry program, provides for bringing together a cross-section of parties. This both establishes the necessary level playing field by working ‘across the board’ with relevant duty holders and fosters supply chain influences as procurers, producers and suppliers must interact in seeking acceptable solutions to OHS problems. The relevant parties should be identified, case-by-case, on the basis of targeting those with real control and influence. This might include plant owners and potential procurers, designers, manufacturers, importers or suppliers, those installing or erecting the plant, and so on. As appropriate to the strategy it might also involve relevant industry and trade associations, unions and other potentially influential parties. The aim is to establish an effective ‘network’ of information and influences that operates at least state-wide, preferably across Australia and, if possible, reaches to overseas sources. Thus it is no longer possible or acceptable for some producers, importers or suppliers to under-cut others. This network will be different for different types of plant, and the different industries in which it is procured and used.

The challenge then is to tailor enforcement strategies to the type of plant and the relevant ‘players’. Applying principles of responsive enforcement, strategies should encompass elements that encourage and persuade those responsible to address safe design but enable escalation of the enforcement response to provide an effective deterrent when required. As discussed, Australian OHS regulators have a number of mechanisms at their disposal, to reinforce advice and inspection with notices of various kinds, refusing to register and/or withdrawing registration (for designated high risk plant), enforceable undertakings (in four jurisdictions), and prosecution and imposition of penalties when warranted.

In working across the board to tackle OHS problems upstream, within industry programs, two distinct types of approaches can be identified. The first involves conducting more generalised surveillance of plant and the second involves specifically focused interventions.

#### *Plant surveillance*

Plant surveillance is a strategy that might be applied if either the group of potential duty holders is large or the regulator is uncertain about the extent of compliance with OHS requirements for a category of plant. The approach involves communication with a wider group of potential duty holders, advising them of their legal obligations and that they might be required to provide evidence of compliance in a follow-up contact. Self-inspection or self-audit tools might be provided to assist firms to ‘self-regulate’ or ‘learn how to comply’ and, if useful, firms could be asked to report to the regulator the results of their self-audits/inspection. A randomly selected sample of the total set of firms involved is then contacted by the regulator to verify that products placed on the market conform to requirements and to require remedial action if this is not the case.

Although follow-up only occurs with a sample of duty holders, surveillance in relation to particular plant can have a wider impact because the whole population of duty holders at least receives information about their obligations and is advised of the need to act on this. This guidance and persuasion element is reinforced by awareness, through publicity by the regulator and informal communication within industry networks, of the genuine possibility of further contact from and action by the

regulator. That is, through informal communication with procurers and other suppliers, or advice from industry or trade associations (and so on), duty holders are aware that there is follow-up with others and they too may be contacted by the regulator.

An example of this approach is applied by the Swedish Working Environment Authority<sup>43</sup> which sends a bulletin to all firms supplying particular machinery or equipment. Firms are referred to the Authority's website which has information about machinery safety and requirements relating to specific plant. This communication is targeted to suppliers of one type of plant such as pressure vessels, earth moving machinery, power presses, dough mixers, and so on. Some of the firms are then contacted and asked for instructions for safe use of the plant, technical information about their product and personnel from the Work Environment Authority may also visit a firm to examine products and documents.

### *Focused interventions*

Focused interventions can be applied when an OHS problem is known. They involve working with a cross-section (network) of parties in the supply chain and market place for particular plant. Those producing or supplying a particular type of plant, as well as influential procurers are engaged. This includes those complying as well as those that may not be; the rationale for this being that compliant firms have a vested interest in levelling the playing field and can help to reinforce the need for action by others. Interventions involve working with relevant parties to define precisely the nature of the OHS problem requiring attention, to explain why it is a problem, to jointly determine the OHS outcomes required and to identify (if necessary) what is not going to be an acceptable solution. The OHS outcomes need not be in the form of specific control measures as innovation is encouraged. Hence the fundamental concern is that the required performance outcome(s) must be clear; for example, ensuring that access to particular danger zones on wood working machines is prevented or requiring attention to ergonomic aspects of the design of certain power tools. Once OHS performance outcomes are determined, the relevant parties are asked to 'sign onto' those outcomes.

In this approach the OHS regulator is doing more than simply advising 'here is a problem, you fix it' but nor is the regulator providing specific direction or solutions. The approach is more one of ensuring that duty holders are left in no doubt about what they are trying to achieve; giving them something to work with. The regulator might commission independent research or technical assessment to assist in clarifying the OHS problem to be resolved. For example, Worksafe Victoria funded Monash University's Accident Research Centre (MUARC) to assess the dynamic stability of industrial fork lift trucks, revealing problems with stability, speed and braking distances, indicating that fork lifts operate 'close to the edge' at all times, with no margin for safety.<sup>44,45</sup> The regulator might also gather evidence from industry sources and experience. However, it is the relevant duty holders that must determine specific solutions to the problem(s), with the regulator being open to different possible solutions and keeping the option open for further research and development. Working with end users to develop solutions should also be built into the process.

For duty holders who do not commit themselves by seeking and implementing solutions that meet defined performance outcomes, then responsive enforcement

comes into play. Again this might involve the use of inspectors' notices, requirements to recall and/or take remedial action on unsafe plant, prohibition or restriction of supply on unsafe items, enforceable undertakings (where applicable) or prosecution, where warranted.

Compared to conventional enforcement practices which draw a very long bow in hoping to 'set an example' and motivate other duty holders to comply by prosecuting one firm and publicising the outcome, the network of information and influences encouraged by working across the board with a range of parties, as relevant to particular plant, increases the potential for compliance. First, it reduces the risk that non-compliant firms will undercut would-be compliant firms, leading the latter to lower their standards to stay in the market place. Second, it helps to ensure that when notices, prosecution or other enforcement mechanisms are pursued with particular firms, because they have not responded to guidance and persuasion, that this action will be 'heard about' by relevant parties in the industry. Thus, specific deterrence with individual firms has a greater chance of achieving more general deterrence, in the context of focused, networked interventions.

## **Conclusion**

In conclusion, while a range of upstream parties have had obligations in relation to plant for some years under the Australian OHS statutes and regulations, the enforcement policies and practice of OHS regulators are principally focused on employers and workers, 'at the workplace'. While there is a range of enforcement mechanisms that might be applied upstream, working effectively to improve OHS outcomes in design, manufacture, import, supply and other upstream phases will require more than simply making greater use of these mechanisms, on an ad hoc basis, with individual firms, in response to incidents involving unsafe plant. There is a need to rethink enforcement policy and practice, tailoring strategies to suit the operating environment upstream.

This paper has suggested some ways forward but these do not represent an exhaustive set of possibilities. In identifying and developing other approaches to enforcement upstream, two elements are fundamental. The first element is the need to harness the network of influences operating in the supply chain and market place for particular plant. This is crucial both to create a level playing field and so that duty holders are influenced to address OHS by those that they do business with, day-to-day. The second element is the importance of responsive enforcement. This starts by providing support for compliance through guidance about legal obligations, the nature of OHS problems to be addressed and performance outcomes to be achieved. Where action is not taken voluntarily to achieve the required outcomes, the enforcement response is stepped up through the range of mechanisms available.

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