

**Working Paper 2**

**Regulating Farm Safety:  
Towards an Optimal Policy Mix**  
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# REGULATING FARM SAFETY: TOWARDS AN OPTIMAL POLICY MIX\*

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## The Current Legal Regime

Each state and territory in Australia has a principal Occupational Health and Safety Act, under which farm machinery (which falls under the broad definition of “plant”) is regulated by virtue of (i) general occupational health and safety (OHS) duties on specific obligation-bearers; and (ii) specific regulations and Codes of Practice which deal with particular safety issues in more detail.

In an attempt to address a lack of OHS regulatory uniformity in terms of (ii) above, the National Standard for Plant was developed and introduced in 1994. It creates a single overarching set of performance and process-based duties that require obligation-bearers to undertake hazard identification, risk analysis and risk control. The aim is to eliminate, and where that is not practicable to minimise, the risks to health and safety.

Each jurisdiction also has some form of regulation (at differing stages of development and reform) regarding plant which impose legal obligations on responsible parties relevant to the life-cycle of a piece of farm machinery. In some states this essentially reproduces the provisions of the National Standard on Plant while in others it goes beyond this to impose more specific requirements. Guidance as to measures which might be taken to comply with those obligations may be found in a range of material including approved Codes of Practice (Advisory Standards in Queensland), and guidance notes by industry or regulatory bodies

There are also a number of relevant Australian and international standards, the latter being particularly significant as the majority of farm machinery in Australia is imported. These other standards are voluntary and do not have legal force (other than to provide evidence of what a reasonable duty holder would do to comply with a certain legal obligation) unless adopted and prescribed in legislation/regulation.

There are a number of significant problems with the current legal framework. How they might be overcome and how the regulatory regime might better contribute to improved occupational health and safety in the agricultural sector, is the subject of the remainder of the paper

## National Uniformity

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The history of uniformity of OHS standards under Australia's federal system has been an unsatisfactory one, with different jurisdictions adopting very different approaches, at considerable expense to industries operating inter-state. The barriers to directly integrating OHS law at a national level seem to be primarily political rather than legal, and as legislative intervention at federal level is extremely unlikely, it is more constructive to examine means of improving the level of national uniformity by other means – in particular, by the use of standards.

This was the approach taken by a National Uniformity Taskforce established in 1991, which identified plant as a priority area for attention; and subsequently all the states agreed to pursue national uniformity in OHS standards. A broad agenda was agreed, which involved not only a commitment to uniformity but also the replacing of prescriptive requirements with uniform performance based standards. Out of this process emerged the National Standard for Plant (NSP), which was created in an attempt to facilitate national uniformity and rationalise the existing body of plant regulations.

However, there has been a failure to implement consistently the NSP, causing confusion and seriously threatening the effectiveness of the standard (notwithstanding that in some form it has been adopted in all states and territories). The Industry Commission has levelled criticism at the manner in which the NSP has been implemented; the content adopted; the slow progress of implementing standards; and the lack of clear and consistent operational objectives.

As well as the National Standard, there are over 6000 Australian Standards, 2400 of which are referenced in legislation, with the remainder used on a voluntary basis. There are currently 60 different standards which relate to tractors alone. There is also considerable potential for international standards to play a role in furthering OHS uniformity in Australia. Strong arguments have been made, for example by the TMA, in favour of generic standards internationally; whilst other commentators have identified certain barriers to uniform implementation of standards, such as national peculiarities.

Where should we go next? Within the political constraints of co-operative federalism, there simply is no "magic bullet" capable of overcoming the many of the problems of lack of uniformity, and no credible way to coerce the states into uniformity. The most realistic path towards national uniformity (however imperfect, and notwithstanding legitimate criticisms of the development of Australian standards) continues to be via the use of standards.

As a starting point, all all jurisdictions might agree to develop a list of comparable international design standards for plant acceptable in all jurisdictions. A related solution would be to treat the issue on a standard by standard basis with the aim to accept only best practice international standards, as argued below.

### **Manufacturers, Designers, And Importers**

Unless the machinery to which individual users are exposed is safely designed and manufactured, there will inevitably be an unacceptably high level of risk involved in its subsequent operation. It is essential that the best standards are imposed in the first instance because the opportunities for subsequent feedback and amendment to design and manufacturing practices are extremely limited. Local users have little

influence over most manufacturers of tractors and large equipment, because it is now the norm for the substantial majority of farm machinery to be imported. Moreover, the experience of many inspectorates is that many of the importers/suppliers are ignorant of their OHS responsibilities or choose to ignore them because of the commercial edge this provides (for example with the deletion of seat belts).

The key role in terms of “building in” OHS at the outset, is that of *designers* of farm machinery. It is their responsibility to ensure that appropriate account is taken of safety considerations at this crucial stage. If designers are not sensitive to human and safety factors in machinery design then serious but unanticipated risks can arise. The role of manufacturers (who for practical purposes are usually the same entity as the designer) is much more limited, but includes producing products to the designer’s specifications, providing operators’ manuals with each piece of machinery sold to an importer, and performing hazard testing on the machines before they are exported. Recent British research suggests that that human factors and health and safety are not perceived or incorporated by agricultural engineering designers as a fundamental part of design, but rather are incorporated at a late stage in the design process when it is too late in the process to do other than take measures such as adding guards and “the numbers of accidents occurring within the agricultural industry continue to be a tragic manifestation of inherently poor design”.<sup>1</sup>

A particular policy challenge in Australia is that it is difficult and for the most part, wholly impractical to influence overseas designers directly beyond imposing regulation at the import stage. Importers (who in some circumstances including receiving plant from interstate, include suppliers) confront a number of difficulties in terms of effectively discharging their OHS responsibilities. Primarily, these relate to resolving differences between Australian standards and overseas standards. A particular problem can arise if there are any differences between imported machinery which complies with international standards and Australian requirements. A second issue is that importers must ensure that the machinery they import is appropriate to Australian conditions and the Australian market. If machinery is imported with features which are not suited to Australian conditions, it creates serious problems. (eg devices which accumulate dust and clog encourage farmers to remove guards and exposes them to greater risk). A third concern, in terms of importers’ role in furthering OHS, relates to safety testing. In practice, our respondents suggest that safety tests are *not* performed in Australia by importers (beyond complying with documentation and record keeping requirements), notwithstanding that legislation in some jurisdictions can be interpreted as requiring this.

It has been argued by the Tractor Machinery Association (TMA) in particular, that much money could be saved, at no significant loss of safety, by accepting products into Australia that are manufactured in accordance with existing standards (AS, ANSI, ISO etc) without the imposition of additional legislative requirements. TMA has suggested that OHS legislation should be amended to facilitate this “rather than being prescriptive about specific design features”. This may well be an acceptable view to the extent that international standards represent regulatory best practice. However, it is by no means clear that this is always the case. A lowest common denominator or compromise approach is not unknown in standards development (or, it must be acknowledged, in legislation). Notwithstanding the cost savings to Australian primary producers that might result, there is a danger that this approach would result in a lowering of OHS protection.

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<sup>1</sup> Safeguarding Agricultural Machinery – Advice for Designers, Manufacturers, Suppliers and Users, Health and Safety Executive, UK, 1998, pp 3-4.

One solution which would seek to steer a middle path between the concerns to minimise the cost of imported farm machinery and the need to maintain best practice regulation (or at least to aspire to this) would be to treat the issue on a case by case (ie standard by standard) basis. To the extent it could be demonstrated that a relevant international standard did approximate best practice, then this might be deemed to be the relevant standard, but not otherwise (the large majority of international standards would likely meet this test). However, UK designers argue that “even if there was an international standard, it would be interpreted differently in different countries anyway, and would be a nightmare to interpret.” Moreover, standard design is not always competitively neutral and may disadvantage one nation and benefit another. Whether adoption of particular international standards would disadvantage the remaining Australian designers and manufacturers is not known, but merits serious consideration should TMA proposals be taken further.

The relatively small number of Australian designer/manufacturers often appear to take a more active local role in OHS promotion. However, most such designers/manufacturers are confined to smaller agricultural and cultivation equipment, with the larger machines all imported.

Risk assessments pose problems at a number of levels. The National Standard on Plant requires a management procedure for risk control at each level of the supply chain including importers and suppliers. The TMA has argued that such a degree of risk assessment is unnecessary because: “a large percentage of products manufactured in, or imported into Australia, are produced by reputable organisations who have incorporated hazard identification and risk assessment procedures in their normal business. “The TMA’s particular concern is with the requirement in some jurisdictions that a ‘local’ risk assessment be conducted by the person importing the product into the state, and the details recorded. Its view is that “such processes are unlikely to add value, where the designer has already completed an assessment, and given that the expertise of the local assessors (usually dealer personnel) is unlikely to be at the same level as the designers”.

In the light of the recent UK evidence referred to earlier, we are far less optimistic about the quality of risk assessment by overseas designers. Nevertheless, it remains likely that they would have considerably more capability to conduct an appropriate assessment than local importers, who in practice, do not fulfil this role effectively at present. Against this backdrop, two choices are available in respect of the large majority of standard (unmodified equipment) which is imported: to devote considerable resources to improving the capability of importers to conduct such an assessment (through training, education and incentives - which the TMA might arguably be in a position to provide - and if needs be, by prosecution), or to adopt the proposition put by the TMA. In cost-benefit terms, the latter may well be the preferred option, but no such cost-benefit analysis has so far been conducted. In relation to the minority of equipment that is modified from the original configuration, or will be operated outside the intended design criteria, and in relation to equipment which is imported which manifestly does not meet required safety standards (eg second hand machinery from Asia) current legislation, which requires the completion of a hazard identification process and risk assessment procedure, would continue to apply.

Finally, a number of issues arise in relation to the gap between theory and practice in the guarding of agricultural machinery. The most important of these concerns overly prescriptive requirements. For example, it was pointed out by the TMA that harvesters, for example, need to be regularly cleaned for

chaff build-up, to minimise the risk of fire. If guards are difficult or time consuming to remove, in practice they will be removed once and thrown in the shed, thus defeating the original purpose.

A number of respondents to our research project suggested that, as one put it: “it needs leadership to provide a resolution to all these problems and nobody is providing it. Without leadership the regulators at the coal-face in the states have no support to move to a consistent interpretation”. The National Occupational Health and Safety Commission (NOHSC) would be the obvious body to provide such leadership, because it already has the appropriate consultative procedures in place, because it is tripartite and because it brings in all the jurisdictions and players together and in so doing would achieve ‘buy in’ from all key stakeholders.

## **Suppliers**

Suppliers can play an important intermediate role in the chain between manufacturer and importer on the one hand and end user on the other. It is a role explicitly recognised by Australian OHS legislation which imposes both general and specific obligations upon this group of duty holders.

However, the extent to which, or the enthusiasm with which, suppliers take on their legal responsibilities, and seek to influence farm safety, would appear to be seriously constrained. Those surveyed stated that the main ways of discharging their general legislative duties involved carrying out and certifying risk assessments with customers (which essentially involved pointing out the potential hazards), passing on Operators Manuals for each piece of machinery (and general manuals where second hand equipment has no original manual); and fitting tractors with Roll Over Protection (ROPS). Many did so with a strict eye to protecting themselves from legal liability, and mindful of the extra time it would take to provide appropriate information.

Our interviews also suggested that the knowledge which suppliers had even of what their legal obligations were, differed substantially. Some expressed little or no knowledge of the law, others were much better informed by virtue of membership of the TMA although they did not familiarise themselves with the regulation directly. Suppliers also play a specific role in the various ROPS rebates schemes in Australia in terms of providing and fitting structures.

While the limited role adopted by suppliers was understandable, a more proactive approach would have merit. The role taken by suppliers on Canada’s Prince Edward Island, might serve as a model. There, machinery dealers are involved in the Farm Health and safety Program and attend a schedule of fairs and exhibitions. They actively promote the importance of tail lights on towed implements, the fitment of ROPS and seatbelts, and encourage guarding and shielding of machinery. Dealers themselves have created incentives (such as discounts) for farmers purchasing ROPS, tail light kits or guards from sponsoring businesses; and have donated prizes for farmers at the fairs and exhibitions.

In the Australian context, it is unlikely that any such initiatives will be pursued without significant incentives, which in themselves might not be justified in cost benefit terms. As a minimum we recommend a greater emphasis on educating suppliers about their legal duties under regulation and what

is necessary to discharge them adequately, and that consideration be given to greater use of suppliers as a vehicle through which to disseminate information about various OHS machinery safety initiatives.

Of more practical value, would be a concerted effort to provide suppliers with practical guidance on what is required of them in manner which is readily accessible and meets their needs. In this context, the proposal of the TMA for the development of a Code of Practice for Machinery Dealers, has considerable merit. This might best be facilitated by the establishment of a Working Group of the Major Stakeholders, but that would not be practicable without additional government funding.

Even with little or no government funding, it could be developed in one of the major agricultural states and then, with only minor modification to suit the circumstances of other states, picked up in each state as an 'industry' code of practice. This view is endorsed by at least one Chief Inspector in one such state.

### ***Second Hand or Used Machinery***

Second hand or modified machinery can cause particular safety concerns, given that older equipment often does not incorporate adequate safety precautions, and modifying equipment can result in the introduction of new hazards. Regulations have addressed the issue by on the one hand increasing certain regulatory requirements (for example, a person who modifies an old machine takes on the responsibility of the designer for those modified parts and affected parts and functions), while on the other, imposing reduced standards where it might be unreasonable to do otherwise (for example, suppliers may supply a lesser degree of information – depending on what is reasonable – in relation to used plant if the original manual is unavailable). However, suppliers are not necessarily fully aware of their responsibilities in relation to second hand or modified equipment. For example, there appears to be a lack of awareness in Australia of the fact that by attaching a front-end loader to a tractor or a spray tank to an All Terrain Vehicle (ATV), a farmer or supplier may assume the legal responsibilities and liabilities of the designer.

Many concerns were identified by our respondents. One of the biggest problems is the prohibitive cost for farmers in upgrading to new equipment, leaving them the option of modifying old tractors (which can be problematic as many are not originally designed to have frames fitted), or buying cheaper second hand machinery. The second hand issue is of greater concern in certain jurisdictions such as Queensland with an older tractor fleet. A particular problem arises with the import of second hand tractors from Japan and elsewhere in Asia because these often have very inadequate built in safety mechanisms.

No easy resolution to the risks of second hand machinery is available, particularly given the economic costs to farmers of upgrading or retro-fitting safeguards. Some regulatory authorities take the view that if old machinery is not maintained and no longer meets safety standards, the wheels should be removed and the machine must not be used as mobile plant. To the extent that it is maintained, the TMA recommend:

“That used or existing agricultural machinery be acceptable for use, provided that it is equipped with at least the level of protection provided at the time of delivery. This is of particular importance for agricultural machinery dealers as acceptance and resale of trade-ins is an accepted part of the business.

Operation of such machinery must be guided by the outcome of a risk assessment, conducted by the owner/operator/employer and may include work practices and administrative controls.”

A number of particular issues need to be addressed as a priority:

- There is currently a hole in OHS legislation in relation to second-hand tractors imported from Asia. These are a serious safety problem which is not adequately addressed by the current regulatory regime (which usually comes in from smaller suppliers and not via the larger, reputable importers).
- Greater efforts (including enforcement where necessary) should be made to ensure that suppliers are aware and accept their increased level of responsibility in relation to modified equipment.
- risk assessments conducted by the owner/operator/employer with a financial interest in the outcome are likely to be somewhat subjective (for example as to whether ROPS is required on an older tractor), and cannot be relied upon as a “stand alone” protective strategy.
- Farmers also modify machinery and in so doing take on the responsibility of a designer. Again, they need to be made aware of this responsibility and assisted in discharging it.
- Given the considerable tension between safety of second hand equipment and economic imperatives (particularly at the farm) consideration should be given to providing economic incentives such as subsidies, for improving highly dangerous second hand equipment.

## **Duty Holders At The Workplace**

Three main strategies are available to influence the behaviour of duty holders at the workplace, such as farmers, owners and employees, and to safeguard children and other family members. These are education and information, incentives, and regulation. We address each of these categories in this section.

### ***Education and Training***

To be effective, farmers must know of the existence of regulatory instruments and codes and have access to relevant information, without which the various regulatory instruments affecting farm safety have a very limited effect. Education and awareness campaigns are particularly important as are the initiatives of organisations such as Farmsafe Australia and the Rural Training Council of Australia.

The greatest challenge is not developing appropriate information (although this is obviously essential) but ensuring that it is effectively disseminated, read, digested, and implemented. Much depends upon how the information is presented and packaged, and upon who presents it. Drawing on what limited empirical literature is available, it would appear that a number of issues are crucial to successful policy implementation:

- developing industry-government partnerships – the aim of such partnerships is to engage actively an industry in the development of a OHS strategy that is tailored to their particular circumstances. This

generates ownership, thus increasing awareness and the level of commitment to its implementation, and emphasise improved OHS practices;

- the right people disseminating the information – Information must not only be transmitted, it must also be received. This is most likely to be achieved where there is face-to-face distribution from trusted sources (customers, suppliers and competitors, industry peers, networks and associations) that emphasises practical solutions. Information should also be sector specific, and delivered in a coordinated fashion. The various forms of information delivery must be effectively coordinated, to minimise duplication, preferably by government;
- developing codes of practice – small enterprises often require much more specific guidance on what is required of them than their larger counterparts. Codes of practice are an effective way to provide practical guidance as to how to achieve compliance, and may be a valuable vehicle for promoting improved ohs practices; and
- exploiting third party leverage – most small businesses have some interaction with professionals (banks, lawyers, insurance companies) and rely on them as credible sources of information. This provides opportunities for using such professionals both to disseminate information and to exert pressure on farmers. On the basis of enlightened self-interest (backed-up by government persuasion), accountants might verify rudimentary OHS audits, banks might require an OHS check list for loan approval, and insurers might seek a statement of hazards identification and control.

Above all, a coordinated and strategic approach to these and related issues is essential. Here, the activities of Farmsafe Australia and the Australian Agricultural Health Unit have been and will continue to be critical.

Particular initiatives that merit further attention include:

- self audit and assessment approaches (cf the current NSW risk assessment checklist for farms, with information regarding the sorts of issues farmers need to address on their property to meet their OHS legal requirements);
- Rural Safety 1800 Hotlines (NSW WorkCover);
- targeting farmers' wives, for example by addressing CWA meetings; and
- other strategies include exploiting the internet, and specific campaigns relating to children and young persons.

### ***Incentives***

The substantial costs of some safety improvements act as a very considerable disincentive to their introduction by farmers. Exhortation and coercion by means of law, may achieve some positive response (and in the case of the latter, some considerable hostility). However, to the extent that funding is

available, economic incentives in the form of subsidies often achieve the greatest success. This is demonstrated by the experience of ROPS rebates.

The Victorian ROPS Rebate scheme for example, has met with particular success in reducing the number of unprotected tractors and the number of roll-over fatalities. These benefits were achieved not by introducing the subsidy in isolation but by combining it with a number of other components: strengthened partnerships between organisations; the introduction of regulatory amendments, and publicity. The result was not only a substantial success with reducing fatalities but increased farm safety awareness generally. Similar schemes have been implemented in other Australian states, such as NSW, using a similar combination of monetary incentives combined with education and awareness campaigns.

It is clear that a ROPS rebate is a very successful approach. We acknowledge that there are some jurisdictional differences, for example fitting ROPS to the older tractor fleet in QLD could be more expensive than fitting to the newer machines in the southern states. Nevertheless, we recommend a rebate scheme based upon incentives, education and partnership, in conjunction with a positive publicity campaign. This should be introduced in relevant jurisdictions which have not so far done so, and continued for a defined period in those that have. In doing so, the amount of payment will be critical (the Western Australian experience was that it was necessary to double the initial amount to get adequate take-up). So too will equity issues: those who chose to fund their own ROPS should not perceive themselves to be punished while those who chose to break the law are rewarded with a rebate.

We also recommend that consideration should be given to extending this incentive strategy to other serious safety hazards. For example, Victoria is working on developing a similar scheme regarding Safe Access Platforms on tractors. It is hoped that with this approach, run-overs fatalities can be reduced just as roll-overs were under the ROPS rebate scheme. However, we note that not all of the factors which facilitated the success of the ROPS rebate exist in the case of Safety Access Platforms. We also note the reservations of the TMA in relation to the value of Safety Access Platforms and the risk that in practice they encourage farmers to jump on and off moving machinery. The Victorian experience should act as a “pilot” scheme, on the basis of which it can be determined whether, or to what extent, to extent its application elsewhere.

### ***Regulation and Enforcement***

Although legislation imposes substantial responsibilities on designers, manufacturers, importers and suppliers, enforcement of these provisions has been extremely limited, with very few prosecutions of designers or other obligation-bearers outside the workplace. The issue of enforcing OHS duties on users *within* the workplace, is particularly sensitive. For example, prosecution of farmers involved in machinery accidents is hugely unpopular in rural communities.

Yet where advice, training, education and information prove insufficient and the risks remain high, enforcement (including prosecution in the most serious cases) may be the only remaining tool capable of sending a strong moral *and* deterrent message about the importance of safety: a message which is

intended to protect farmers and others from their own negligence.<sup>2</sup> The views of some inspectorates and of farmers themselves on this issue are diametrically opposed, with the farming community regarding such prosecutions as illegitimate. In part, this may be a result of having no clear “offence” with which the farming community can identify: the greater the degree of specificity that can be required (as with ROPS) the greater the likelihood that the farming community will accept the moral legitimacy of prosecution. Unfortunately, this solution will work in only a minority of cases because, for reasons indicated below, such specificity is simply not practicable in the majority of circumstances. For this reason broad based performance standards are the best way forward, notwithstanding community concerns about prosecuting on the basis of them.

Each Australian jurisdiction has a general OHS enforcement policy. Most such policies focus on encouraging compliance by promotion, education and advice to duty holder; escalating to the issuing of various improvement or prohibition notices; with resort to prosecution being reserved for serious breaches (to be used as a deterrent in the public interest). In practice, most jurisdictions have focussed on encouraging compliance, to the virtual exclusion of enforcement (although some jurisdictions issue administrative notices requiring ROPs in some circumstances). However, some regulators indicated that a significant re-evaluation of their current “softly, softly” approach was taking place and that this was likely to result in a somewhat greater emphasis on enforcement, even to the extent of prosecution, where other strategies failed. However, as indicated above, inspectorates adopting this approach however, have commonly faced a backlash from farming communities.

The difficulty for regulators is in striking a balance between providing information/assistance and compliance/enforcement actions. There may be a fundamental problem in applying enforcement policies intended for industrial or commercial workplaces, on the private farm that is also the home. Yet a number of interviewees made the point that: “Legislation is useless if it can’t be enforced”. Against a backdrop of not only political hostility to prosecution in the rural sector, but also extremely limited regulatory resources, what enforcement strategy should be adopted?

Although it should be regarded as a last resort, experience suggests that an underpinning of government regulation coupled with (at least a perceived) credible threat of inspection and enforcement, is necessary to persuade the reluctant, the recalcitrant, and the incompetent, that other, less coercive approaches, are worth adopting. Yet the numbers of importers, suppliers and farmers so vastly overwhelms the number of inspectors that it is wholly impractical to inspect, let alone enforce, against a significant number of them. Even so, the *impression* of enforcement for serious and deliberate breaches can still be maintained through a judicious use of targeted enforcement, occasional prosecutions accompanied by broad publicity, blitzes on particularly serious hazards and the greater use of less resource intensive instruments such as on the spot fines, prohibition and improvement notices.

Accordingly, we recommend that a tiered, or “pyramidal” enforcement policy be adopted,<sup>3</sup> focusing on education, advice and persuasion, but gradually escalating to a range of administrative and other

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<sup>2</sup> John Dawson has made the argument that greater use of civil liability might provide a credible alternative path to prosecution, and what would be necessary would be to give the injured party specific rights to civil recovery. However, given the general trend across a number of jurisdictions to reduce the role of civil liability in personal injuries cases, the practical possibilities for going down this route appear very limited.

<sup>3</sup> See Ian Ayres and John Braithwaite, *Responsive Regulation: Transcending the Deregulation Debate*, New

sanctions. Prosecution should be reserved for a small range of situations of an egregious nature, where deterrence is necessary to send a message to the broader farming community about the importance of taking essential precautions for their own protection and that of their families and associates. Such prosecution may have greater acceptance within rural communities where the offence in question is specific rather than general.

## **Comparison Of Specification, Performance And System Based Standards**

There is a general trend to replace outdated prescriptive regulations (which focus on detailed specifications or technology) with broader based performance standards (focusing on outcomes), in conjunction with process standards. This trend is apparent both within Australia (eg the National Standards on Plant/Hazardous Substances) and internationally (eg the *Process Safety Management Rule* (USA), the *Construction (Design and Management) Regulations* (UK), and the *Health and Safety Framework* and daughter Directives in the European Union). The most important characteristic of such measures is their approach to managing hazards by incorporating the three fundamental steps of hazard identification, risk assessment and risk control (underpinned by a series of either principle-based (ie general duties) or performance-based standards). Under the National Standards approach, and indeed under the legislation of individual jurisdictions, this trend is likely to continue.

There is support from many but by no means all stakeholders for performance-based regulation. As a number of respondents have pointed out, products are evolving so quickly that specification standards would very rapidly become outdated, and the flexibility inherent in the performance standards approach becomes imperative to accommodate this change. For example, a major issue in the life cycle of farm machinery is the rapid development of hybrids: ie the convergence of two or more machines into one, such as a tractor fitted with a back-hoe or a front end loader device on a tractor or an earthmoving machine. It is impossible to keep up with such developments in a specific way and, notwithstanding that farmers would prefer concrete and specific guidance, performance standards are, in the view of many, the only practicable choice.

The intention of the Robens Report, and of the main OHS legislation of each Australian State was that specification standards be substantially replaced by performance standards, and that greater reliance be placed on codes of practice rather than regulations. However, the process of replacing specification standards has been an extremely slow one. We recommend that:

- the process of rationalising and reducing the total number and complexity of regulations should continue;
- the weight of specification standards should be substantially reduced. Such standards shall be reserved for exceptional situations: for example, where there is a high degree of risk and there are specific controls which are applicable to all circumstances where the risk occurs, and which are essential to control the risk;
- in most circumstances performance and process standards are the most appropriate ways of providing guidance as to how to comply with the general duty requirements. To preserve flexibility of response,

such guidance can often be provided in codes of practice and technical guidance notes rather than in regulations;

- small employers, in particular, often require quite specific guidance as to what is required of them. Such guidance should continue to be given, but this is most appropriately done through technical guidance documents rather than through legally binding and prescriptive specification standards;
- however, in cases where there is a clear danger and a specific and known solution (as with ROPS) then there is no in-principle reason against the introduction of specific legislation, with teeth, rather than merely guidance notes;
- government OHS inspectors require greater training in order to administer effectively performance than specification standards because of the greater discretion involved; and
- the duty of care on manufacturers and suppliers to disseminate information should be broadened so that it explicitly requires them to include the information contained in any relevant codes or technical data sheets.

## **A Context For The Design Of Appropriate And Effective Standards**

### ***Child Safety on Farms***

Statistics suggest that children and young persons are at an unacceptably high risk of farm accidents and that a disproportionate number of fatalities are related to use of farm machinery and in particular to vehicle use. It would be wise to impose a minimum age for the use of tractors and ATVs, as is the case in some Canadian jurisdictions, as well as the UK. However, the main policy focus should be on information and education campaigns directed at two discrete audiences: farmers themselves and/or children and young persons. However, such initiatives must be located within the overall strategic framework being developed by Farmsafe Australia and in terms of the evolving National Strategy for Child Safety on Farms.

### ***Changing Technology***

ATVs have to a significant extent replaced the use of small tractors. However, there is no equivalent regulation of ATVs in Australia as there is for tractors, notwithstanding the popularity of the former. ATV use is a major source of death and serious injury on farms. A shift in regulatory focus may be required, which recognises the particular hazards involved with ATVs, not least because such vehicles involve a compromise design involving substantial instability. Such a focus would include a prescribed minimum age as recommended in the previous section. It would also closely track British initiatives to design a ROPS for ATVs. It might also be appropriate to contemplate training for novices (as is required in the UK). There should also be a continuing focus on the provision of information sheets emphasising the dangers, reinforced by statistics and graphic stories of particular incidents.

## ***Problems relating to Interpretation of Statutory Wording***

As discussed in above, there are various contentious issues regarding interpretation of machinery legislation and regulation. In particular, the expression “when properly used” addresses a legitimate concern of duty holders. It was probably included to prevent an upstream duty holder from liability for risks to workers arising from the misuse of the plant or substance at the employer’s workplace but has since been given a much broader interpretation. Notwithstanding that the 2001 decision in *WorkCover v Arbor*<sup>4</sup> has removed some of the injustice that the term ‘when properly used’ was capable of perpetrating, a legislative solution may provide greater certainty for all concerned. Accordingly we recommend the term ‘when properly used’ which permeates most Australian statutes concerning design and manufacture of plant, be removed.

## **Conclusion**

The issue of farm machinery safety is both complex and challenging. No single policy instrument is likely to be wholly effective in dealing with it. Nevertheless, a number of strategies have been identified which in combination are likely to prove much more effective than any one operating in isolation.

We identified a range of duty holders at each stage in the supply chain, and appropriate legislative duties that are necessary in relation to them. However, it was also recognised that in some cases (as with designers who are located overseas) the reach of the legal system is very limited, and the use of both international and Australian standards is likely to prove crucial in respect of some of these issues.

But in many other respects the law can make a substantial contribution to improving OHS, providing it is appropriately designed and effectively implemented. The general thrust of our argument has been that Robens-based approach of performance standards supported by codes of practice and guidance notes is the correct one. This is because of the greater flexibility it provides in most circumstances and because a stricter specifications standards approach would, for the most part, be both impractical and inhibit safety innovation. Nevertheless, where duties can be clearly defined and the consequences of failure to comply involve serious risk, this does not preclude the introduction of more specific standards underpinned by the enforcement “teeth” to make them effective.

We noted a number of serious deficiencies in the current approach, not least being lack of uniformity (despite the introduction of National Standards), a failure to remove old-style prescriptive legislation from the statute books, and the failure to develop the necessary codes and guidance notes to a sufficient extent to underpin the broader general duties owed by in relation to farm machinery. More specific solutions were identified in relation to specific problems such as are involved with child safety, changing technology and remoteness of farms.

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<sup>4</sup> *Workcover Authority of NSW (Inspector Mulder) v Arbor Products International (Australia) Pty Ltd* (2001) 105 IR 81.

In terms of enforcement, a mixed approach is recommended, with advice and persuasion being the preferred strategy, but escalating to the use of administrative notices, on the spot fines and ultimately, prosecution in extreme cases to give credibility to the overall “enforcement pyramid”.

Beyond all else the virtues of pursuing an optimal policy mix were emphasised. For while education, training and information play crucial roles, so too, should positive incentives, and, in extreme cases, prosecution. The success of the ROPS scheme exemplifies the benefits of a combination of instruments: of subsidies used in conjunction with strengthened partnerships between organisations, underpinned by regulation and publicity, and culminating in demonstrable success in terms of improved OHS awareness and most tangibly, substantially reduced fatalities.