OFFSHORE SAFETY MANAGEMENT IN THE "NEW ERA": PERCEPTIONS AND EXPERIENCES OF WORKERS *

David Whyte, Steve Tombs
Liverpool Business School, John Moores University

Denis Smith
University of Durham

In the context of considerable focus upon offshore safety, relatively little attention has been paid to the experiences of offshore workers themselves. This paper begins with a discussion of the origins, nature, and likely consequences of UKOOA's 'Cost Reductions in a New Era' initiative, which addresses itself directly to questions of culture and cost reductions in the sector. We then note changes to the post Piper Alpha offshore safety regime in relation to two key areas, namely the development of safety cases and the system of safety representatives and safety committees. Using themes developed on the basis of interviews, evidence is then drawn from interviews with a small sample of offshore workers to determine their perceptions of the efficacy of the new offshore safety regime. Following these considerations relating to the formal system of safety organisation, we shift to examine perceptions of the less tangible, but perhaps most significant, aspects of safety organisation; these are termed 'management attitudes' and 'cost-cutting'.

Keywords: worker participation, safety representatives, safety committees, safety cases, management attitudes, cost-cutting, CRINE.

INTRODUCTION

Much has been written - both in terms of speculation and early assessment - on the new offshore safety regime recommended by Cullen, and now required by the Offshore Safety Act. However, within this renewed attention to offshore safety, relatively little attention has been paid to the perceptions and experiences of offshore workers themselves. This paper is largely based upon some very preliminary attempts to record those perceptions and experiences of this new safety regime.

Here, our concern is with offshore workers. We would emphasise that the findings presented here are based upon a pilot study, are necessarily tentative in nature, and will serve to inform questions to be investigated for a major, long-term piece of research on risk and crisis management in the offshore oil industry[1].

* This work is part of an ongoing research project which aims at constructing a comprehensive picture of the post-Cullen offshore safety management by using qualitative interviews with offshore workers, supervisors and managers; and offshore trade union officials; onshore-based personnel with safety functions; senior representatives of oil company managements; and Health and Safety Executive personnel.

The perceptions and experiences of workers cannot be ignored in any assessment of a safety regime. Past research conducted by the authors on the nature of failings in safety management, both on and offshore, has consistently concluded that a key omission in safety regimes is any detailed attention to the experiences of, and possible roles for, workers. This consistent finding needs to be placed in the context of a wealth of evidence which attests to the fact that any adequate system of safety protection must involve the workforce. And this degree of worker involvement is perhaps best achieved by a unionised workforce. For any such systems to work, the workers must actually perceive themselves as able to participate in safety organisation, through both formal and informal channels, and in both reactive and proactive ways. This paper is concerned with the reality of, and potential for, worker participation in safety organisation. Thus, workers' perceptions of safety organisation are closely related to formal structures of involvement (for example, systems of safety representation, participation in the development of safety cases, the ability to raise safety concerns), and those less tangible aspects of the environment within which such rights (and responsibilities) are developed (the most obvious here being the general climate, or culture, of an organisation or industry).

This paper begins with a discussion of the origins, nature, and likely consequences of UKOOA's 'Cost Reductions in a New Era' initiative, which addresses itself directly to questions of culture and cost reductions in the sector. We then note Cullen's recommendations in relation to two key areas, namely the development of safety cases and the system of safety representatives and safety committees. We next consider evidence drawn from interviews from offshore workers to determine their perceptions of the efficacy of these aspects of the new offshore safety regime. Following these considerations relating to the formal system of safety organisation, we shift to examine perceptions of, the less tangible, but perhaps most significant, aspects of safety organisation. Of particular interest to us are two themes which emerged across the interviews conducted with offshore workers, namely 'management attitudes' and what was termed 'cost-cutting'. There are two key rationales for this paper. One is to allow this admittedly small group of workers to speak for themselves. A second is that developing an effective safety management system requires an understanding of how workers perceive and experience the current system; this is not equivalent to saying that these views have to be uncritically accepted, but it is to say that they must be given a hearing.

ATTITUDES, CULTURE AND SAFETY IN THE "NEW ERA"

In June 1985, the collapse of the OPEC quota system saw oil production increase and the price per barrel plummet, from $30 in November 1985 to $10 in April 1986 (Harvie, 1994: 314). The effects of this were immediate. According to Harvie, "The majors cut their budget by 30 to 40 per cent" (Harvie, 1994: 321), and 1986 saw 22,000 jobs lost in the industry (ibid.: 322). In 1986,

> "Drilling [in the British North Sea] fell by 40%, as companies abandoned projects like the discovery of new fields in favour of the limited expansion of new ones.....The majors could tide this one out. But the effects on supply and exploration companies was more deadly. The Royal Bank of Scotland calculated that sums of £60 billion in future North Sea investment, 1985-90, would have to be revised downwards by at least 50 per cent. For the suppliers, even a fall in demand for their services of more than one-third was near catastrophic" (Harvie, 1994: 319).

Such problems associated with a mature industry were clearly exacerbated by the regulatory consequences of the Piper Alpha disaster and the Cullen recommendations. The industry was likely to face considerable direct and indirect costs related to any improved safety regime. On direct costs, Elliot has

argued that, taken in total, the combined direct costs [i.e. where direct costs are related to specific items of hardware or additional design processes demanded by regulation] can be assessed as approximately 2-3% of total installed costs:

> "At first sight, this does not seem to be too high a price to pay for increased safety. However.....a 3% increase in costs will reduce by 10% the number of fields which are economically viable".

Elliot claims that indirect costs - such as those resulting from any conclusions of Quantitative Risk Assessments - cannot yet be calculated. However, James Capel have estimated that direct and indirect costs combined might add 10-15% to the overall cost of offshore operations. This figure excludes any consequences of what the City firm believe to be increasing pressures for operators to shift from the use of contract to direct employees (Financial Times, 24/8/1989), although it seems that since Piper a greater percentage of offshore workers are drawn from contract labour (OILC, 1994: 4). Redmond has provided estimates of the impact of the Piper Alpha disaster expressed in terms of future insurance costs for those operating offshore. Harvie has also commented upon the one specific cost, namely the building of any new platforms with accommodation separated from production. These "would cost 50-60% more than their predecessors" (Harvie, 1994: 334). It is against this background that, by the early 1990s, offshore operators begun to develop an initiative which would allow the exploitation of new fields in a very different economic context:

> "The North Sea is now a mature province with most of the large fields already discovered and developed; however, that does not mean that there are no further significant business opportunities in the area. On the contrary, some 230 undeveloped discoveries are currently listed in the DTI's Brown Book and, of course, there is now evidence to suggest that the West of Shetland has the potential to contain significant deposits. The majority of the undeveloped discoveries are undeniably smaller on average than those developed to date - less than 50m barrels of oil or equivalent of recoverable reserves. Nevertheless there is a firm belief that this bank of potential discoveries, together with those yet to be found, can provide a basis for a bright future and not just for operators, but also for contractors and suppliers and, of course, the industry can continue to make a valuable contribution to the economic health of the nation" (Tuft, 1994b: 1).

These newly defined realities provide the origins for UKOOA's "Cost Reduction Initiative for the New Era", henceforth CRINE.

CRINE has been described as "an industry-wide initiative with the main objective of making it possible to achieve a 30% or more reduction in capital costs for any future oil and gas facilities development. This cost reduction will, without prejudicing safety or protection of the environment in any way, continue to maximise the remaining recoverable reserves, improve the construction industry's competitiveness in the international arena and thereby help sustain employment at a higher level than would otherwise be possible" (Tuft, 1994a). The language of the original CRINE statement (and that used in the bulletin 'Crinewatch') is instructive, and several themes are worth noting as having particular relevance for offshore safety.

Firstly, there are consistent references to the need to develop new attitudes, to establish relationships of trust amongst those working offshore, to change an adversarial culture and to encourage partnerships. For example, Tuft, again, refers to "an arrogant and insensitive behaviour" which has characterised virtually all

relationships in all spheres of activity in the sector (Tuft, 1994b: 3). Thus he argues for the need for "all participants in the industry" to leave the "cycle of revenge" (Tuft, 1994b: 5), with a resultant change in attitudes hopefully leading to changes in practices (ibid.). The implication here is that there is a need for the principle of partnership and this should be "within organisations, across functions and skills, between owners, between companies and their contractors and suppliers and .. between the industry as a whole and government and other regulatory and statutory authorities" (ibid: 7). Similarly, Swaine refers to "close co-operation between design, fabrication and installation contractors" resulting in "the elimination of much inefficiency and duplication" (Swaine, cited in Crinewatch, October 1994). It seems strange that the one group that is clearly neglected in this new close co-operation are workers. By contrast, these have to be convinced of the 'benefits' of CRINE, and therefore represent an object of, rather than subjects in, the whole process - and it is just such a positioning that has proven so detrimental to occupational safety organisation both offshore and, indeed, more generally.

Secondly, CRINE is explicitly related to much wider proposals for deregulation. This added impetus for the process is encouraged by the Government in general, and by Tim Eggar, Minister for Industry and Energy, in particular. The latter has written in Crinewatch of the contribution of the Government to CRINE through recent deregulatory initiatives, emphasising current consideration of new deregulatory proposals, and calling for "additional proposals on deregulation" which "would be very welcome from industry" (Eggar, 1994).

Thirdly, CRINE-related statements consistently assert an absolute complementarity between the goals of cost-reduction, efficiency, quality, and safety and environmental protection. For example, as Criswell, President of UKOOA, has stated, CRINE is "the industry's contribution to safety and the environment" (cited in Crinewatch, December 1994: 11), while others within the UKOOA network have claimed that,

> "Our prime aim has been, and will be, continuous improvement of our bottom-line performance and equally, safety and environmental performance. Cost reduction is one of the main drivers of improvement" (Rothermund, Shell UK Exploration and Production's Managing Director, cited in Crinewatch, October 1994).

It is perhaps worth noting how, in common with many of the advocates of Total Quality Management in the mid-eighties, the advocates of CRINE see no incompatibility between competing goals of cost reduction, quality, safety and environmental improvements. Referring to the need to develop quality, the original CRINE statement, 'Cost Reduction Initiative for the New Era', notes that "Importantly, this concentration on quality is also likely to enhance safety" (section 2.5.1, p. 10; see also p. 30) and that, "The correct implementation of CRINE recommendations is fully synergetic with the overall safety process followed by the industry in the post-Cullen era .." (Romieu, Elf Enterprise chairman and managing director, cited in Crinewatch, Dec. 1994: 11).

Despite such assertions, very few specific details are given as to how this synergy is to be achieved and maintained. Certainly the use of common CRINE-based equipment across all installations, thereby improving the familiarity of operators with plant across installations, is likely to prove beneficial. (However, it has to be said that this would not have to be the case were employment not of such a fragmentary nature. This is a situation that the operators can be seen to be exacerbating through increasing use of contract labour, despite the clearly detrimental effects of the use of contract labour for the development of an effective safety system). In other words, there is a constant assumption that these various goals are in harmony, an assumption which, frankly, is unsustainable. Moreover, despite the emphasis upon reducing capital costs, where specifics are provided these indicate that operating costs are also a CRINE target (see,

for example, Wils, cited in Crinewatch, December 1994, pp.10-11). It is clear that reductions of these costs may have detrimental effects upon safety. The controversy surrounding "the disappearing standby boats" is one example of a cost-reduction policy that is likely to impinge upon safety (OILC, 1994: 5-7).

CULLEN AND THE CREATION OF A NEW OFFSHORE SAFETY REGIME

Cullen's recommendations broadly focused on the reconstruction of the offshore safety regime to bring it closer to the system of safety regulation onshore. He proposed that the application and assessment of safety standards was to be driven by the principle of self-regulation. This concept sits at the heart of the 1974 Health and Safety at Work Act although its application within the chemicals and related industries has attracted differing views as to it success (see Kharbander and Stallworthy, 1991: Smith and Tombs, 1995). In the context of land-based major hazards, it requires formalised risk assessments, to include details of how risks which have been identified are to be effectively managed; more generally, it is dependent upon an active and formalised role for workers as one group of a tripartite system of safety participation (Tombs, 1990). Central to any worker participation in the new regime proposed by Cullen were, first, the safety case approach and, second, the fostering of a participative safety culture offshore, the key institutional element of which was to be a system of safety representation and safety committees.

Safety Representatives and Safety Committees

Cullen envisaged that improved systems of communication from the shop floor to the board room, and the development of worker involvement in safety management would be essential to the development of offshore safety culture and the new regulatory regime:

"The regulatory body, operators and contractors should support and encourage the involvement of the offshore workforce in safety." (Cullen, 1990: Recommendation 27).

The first major change to the established offshore safety regime occurred within days of the Piper Alpha disaster. In 1980, the report of the Bourgoyne Committee recommended that every offshore installation should have a safety committee. This system was to be drawn up by the Department of Energy after consultation with interested parties, namely, the trade unions and UKOOA. Between the publication of the Bourgoyne report and Piper Alpha, almost 8 years, three meetings took place to discuss this matter without a decisive outcome. A matter of days after the Piper Alpha disaster, the Department of Energy announced that a new system of offshore safety representatives and committees would be introduced within a year. The principle source of conflict between those involved in consultation with the Department of Energy had been the issue of the role of trade unions in offshore safety committees. UKOOA had been adamant that the 1977 onshore regulations (SI 1977/500) should not simply be extended to offshore installations. These regulations provided for trade union appointed safety representatives, a situation to which UKOOA appeared to be openly hostile. Sadly, the paradigm shift in regulation once again followed on from a disastrous environmental jolt to these organisations. Piper Alpha shattered the conventional wisdom concerning the "worst case accident scenario" and raised fundamental questions concerning the safety of installations within the sector. The regulatory response after Piper Alpha saw the implementation of the Offshore Installation (Safety Representatives and Committees) Regulations 1989 (SI971) stipulated that there should be at least one representative for every 40 workers, and a minimum of two representatives on each installation. Trade unions were not given the power of nomination as they had been onshore.

Cullen made two important recommendations which aimed to improve the system of safety representatives that had been in force for a year prior to the publication of the report of the inquiry into the Piper Alpha disaster.

Firstly, that safety representatives should be protected from victimisation by management (Cullen, 1990: recommendation 30) and secondly that the operator of the offshore installation should make provision for training for safety representatives, and that this training should be paid for by the operator (ibid.: recommendation 31). Although he was not to specify a formal trade union role in safety committees, Cullen did state that "I am prepared to accept that the appointment of offshore safety representatives by trade unions could be of some benefit in making the work of safety representatives and safety committees effective, mainly through the credibility and resistance to pressures which trade union backing would provide" (ibid.: 376-7).

Safety Cases

The Cullen report also focused attention on the need to introduce effective safety management systems, risk assessments, and emergency response strategies through the use of the 'safety case' approach (Cullen, 1990: chapter 23). Cullen modelled his system of safety cases on the existing onshore regime and recommended that, as in the onshore industries, the submission of the safety case should be monitored by the newly established Offshore Safety Division of the Health and Safety Executive (HSE). Again, it is worth noting that such regulations concerning land-based major hazard sites were also influenced by a series of accidents including Flixborough, Seveso and Bhopal.

The Cullen report was clear in its view that workforce involvement in safety was crucial, and asserted that "It is essential that the whole workforce is committed to and involved in safety operations" (ibid.: 276-277; see also 281-289). Cullen advocated the inclusion of the safety management system as a central element of the safety case process in order that operators would ensure "that the design and operation of their installations and equipment was safe" (ibid.: 370). Cullen also stipulated that the safety management system should set out the operator's system for the involvement of the workforce in safety. This principle of workforce involvement was also to feature in the compilation of safety cases. The Offshore Installations (Safety Case) Regulations 1992 directed that safety representatives should be consulted on the preparation of each installation's safety case. These regulations also stipulated that safety representatives were to be given the opportunity to see the Safety Case for their installation and also were to be supplied with a summary of the safety case.

WORKERS' PERCEPTIONS AND EXPERIENCES

In this section, we report upon findings of interviews with a group of offshore workers in the context of a pilot study for a longer-term, and much broader, study. Given the small sample of workers interviewed, there is no sense in which we can make claims regarding the 'representativeness' of the views presented here, although the respondents do possess a wide cross-sample of offshore experience. Two further points follow. First, many of the issues represented in the interviews relate to factual developments which it has been possible to check and, in fact, verify from other sources. Second, even if the views discussed here are not wholly representative, that such consistent themes emerged from these interviews must make them of relevance for any future consideration of workers' perceptions of the nature and efficacy of the post-Cullen offshore safety system.

Safety Representatives and Committees

Although most respondents agreed that the introduction of SI971 safety committees represented a distinct improvement on previous informal and non-standardised systems, the majority also believed that the current system of safety representatives and safety committees is unable to deal adequately with workforce input to safety. One rated the introduction of SI971 safety representatives and committees as little as a "1%

improvement" on the formal input that workers had previously enjoyed. [17: SC] Another believed that the safety representative system "had made things worse" because the system did not work practically, but looked good on paper and therefore allowed the operator to become complacent about workforce involvement [7: UC].

One unanimous view amongst this sample was that there were certain issues that could not be raised by representatives in safety committee meetings for fear of reprisal. Those issues would tend to be the more significant problems which may have an impact on the process of production. As one former safety representative explained:

"If we demanded at a safety meeting that the COSHH regulations were applied for a major job, two things would happen: First they wouldn't do it. Second, I wouldn't be back. But if I complained about a welder's equipment not being earthed, it would be dealt with and the company would use it to look good and to say it was quickly dealt with" [4: SUC].

Two broad profiles of safety representatives were constructed by respondents. Firstly, there were those who were known as "compliant" or "tame" safety representatives and who would largely act as management wanted them to, raising the odd minor matter of concern that would not threaten the rate of production. Often the members of this group were attracted to the position of safety representative because of the extra payment they were given, or because they saw it as a good career move to secure the stability of their job. Within this group there were also those who had realised, after they had been elected, that they could not operate as strong safety representatives for fear of the sack. The second group were the minority group: that is, 'strong' safety representatives who were willing to raise workers' concerns freely and openly. In some cases, the safety representatives in this group would be NRBd (Not Required Back) or "run off" for being "troublemakers", but occasionally, the strong safety representatives were able to operate without intimidation. The reason proposed by most respondents for a small number of representatives being allowed to operate in this manner was that the company knew that the individual could cause them more trouble if they went to the press, or pursued an industrial tribunal, than if they were allowed to continue as a strong safety representative.

Those respondents who had served as safety representatives were amongst the most critical regarding the efficacy of the system. Respondents who had experience either of serving as a safety representative themselves or of using their safety representative to raise concerns, pointed out the obstacles that often existed to prevent safety representatives acting effectively. These have been articulated as follows.

1. Management would manipulate the agenda and dictate the issues that were up for discussion at safety committee meetings: "Safety Meetings are not safety meetings, they're safety lectures." [8: SUC]. Some Offshore Installation Managers (OIMs, normally chairing the safety committee) would restrict the discussions to what some called 'slips, trips and falls', or, in one case bar certain topics from being raised, such as helicopter safety. "There's things your [safety] rep. can't say at a safety meeting.....They'll ask you if you've got points to raise, but you only raise some things. You can't raise political hotspots" [12: O]. Often questions from safety representatives were ignored during the meetings: "They'll only involve you in what they want you involved in" [17: SC]. On one platform, the OIM would wait until the end of the meeting before allowing safety representatives to raise points. This part of the meeting would not be minuted.

2. Safety representatives regularly risked intimidation and bullying, and ultimately the loss of their job, if they were high profile and willing to confront management: "If you are going to be a serious safety rep, then you're putting your family at risk, you're putting your livelihood at risk" [3: SUC]. One respondent said that he had been NRBd for raising a safety related issue as a safety representative, and 2 others knew of safety

representatives who had been disposed of in similar incidents. Although Cullen recommended in the strongest terms that safety representatives be protected from management intimidation (Cullen 1990), as one respondent pointed out, the form of protection enshrined in the Cullen report only comes into effect after the event, and therefore is no compensation for the lack of trade union support for safety representatives.

3. Two respondents who were known to management as trade unionists reported that they had been prevented from standing for election to the position of safety representative because it was thought that they would cause management too many problems. One was told that he was about to be moved to another platform, and that there was little point in him standing. The other was told by the OIM that he was waiting for nomination forms to be sent out from headquarters. As he waited for his nomination form to arrive, an election was organised and an alternative candidate elected.

The difficulty of operating effectively without any organisational back-up was stressed by a number of respondents. The continued absence of collective bargaining agreements with trade unions offshore and the general hostility shown by operators to trade unions [Foster and Woolfson, 1992] means that even if safety representatives are organised collectively in a trade union, it is difficult to operate openly as a trade unionist. Trade union support was seen as important by respondents both because it gave the safety representative strength in numbers, and also because of the advice, training and information services that a trade union can offer. One worker who had not been a safety representative recalled that "the only good safety reps I remember are the one's that's in the union" [9: UC]. Around half of those interviewed reported that they did not bother to raise safety concerns with their safety representative because "nothing will get done" [11: C] or because "nobody listens to what they say" [21: C].

Spaven et. al. (1993) have noted that OIMs have encountered difficulties in filling vacancies for safety representatives posts, and that "ballots are relatively rare" allowing most candidates in safety representative elections to stand unopposed. In order to ensure that safety representative positions are filled, OIMs have taken a proactive role in persuading people to stand as safety representatives. This situation was reflected in worker's reports of the recent trend of foremen and supervisors standing for election as safety representatives (usually unopposed) on a number of platforms. This was generally seen as a retrograde step because of the conflict of interests within the two roles and because of the pressure that management are under to maintain a "problem-free" working environment. Respondents also believed that this trend represented a further entrenchment of the reluctance of people to raise safety matters openly: "If you're worried about going to your foreman to say something, it's not any different just because he's the safety rep. It just means that's one less person to turn to" [18: C].

Despite the broadly negative nature of the comments on the system of safety committees and representatives, one success story was told. This concerned a group of drillers who asked their safety representative to meet with the OIM and request that drilling workers be exempted from the newly introduced "3 on 3 off" shifts, on the grounds that they were not able to work safely after two weeks on the platform. Their appeal was successful and they continued to work on "2 week on 2 week off" shifts.

Safety Cases

There were two reported ways in which workers were allowed an input into safety case documents. These were: by the operator calling a safety case meeting and inviting selected workers or selected safety representatives to participate as representatives of the workforce; or by the operator selecting individuals to participate because of their expertise in a particular area.

Three respondents had been involved in the preparation of safety cases: one as a technical supervisor, one as a safety representative, while one was invited to a mass meeting with oil company executives where

"suggestions" were called for. Some of those interviewed reported that their safety representatives and other workmates had been given the opportunity to contribute to or comment on the safety case, although others had never heard of safety cases. Only one respondent reported that he knew what the safety management system was. The majority of respondents reported that they had not been invited to make a contribution to the safety case, even in this restricted manner.

Where some form of contribution from workers to the preparation of safety cases was invited, suggestions were said to be normally rejected by management as either inappropriate or deliberately obstructive. In some cases, management were accused of selecting 'compliant' safety representatives or compliant workers for safety case meetings: "On the [installation], they consulted two safety reps, but the reps didn't take up any issues or add anything to the safety case, because they were compliant safety reps." [3]. In other cases, management were perceived to have conducted a "fake" consultation exercise simply to "look good" and had not seriously considered the comments or questions from workers. One respondent recalled how during a meeting called to invite workers input to the safety case, the majority of workers had been concerned about the location of life boats, and wanted them resited. They were told that this was not possible because the safety case had been finalised and was at the stage of being approved. A number of platforms were reported to have invited workers input at such a meeting. Generally, respondents regarded these meeting as being a "paper exercise". The meetings did not allow them a forum for raising matters in relation to the safety case. One respondent recalled that at one of these meetings, a company executive appeared for a one hour meeting in the cinema with any workers on the platform that wanted to go and discuss the safety case. The first half hour was taken up with the company executive explaining the process of preparing a safety case. The second half hour was allocated to questions and points from the floor. None of the people present had been given a copy of the safety case or had heard anything official about the safety case until that day. Perhaps unsurprisingly, no questions were asked and no points were made.

A similar problem was experienced by safety representatives when they were invited to a safety case meeting. It was reported that the usual format for such a meeting was to gather together all of the safety representatives on a platform and supply each with a copy of the safety case. They would then be given a period of time (usually between an hour and half a day) to read selected sections of the safety case, and asked for comments at the end of the period of time. It was made clear that this would be their only chance to have an input to the safety case. This type of consultation exercise has understandably generated scepticism of the authenticity of operators' commitment to workforce involvement in safety.

In light of Cullen's eagerness for workforce involvement to be a central part the offshore safety regime, it is dismal that so few respondents reported any level of serious involvement in the formulation of safety cases. Respondents were keen to stress that "the real experts", shop-floor workers, were the best people to consult: "The companies don't accept that the guy doing the job is probably the best qualified safety officer they could have. He will be very attentive to the safety case because it's his f***ing life" [4: SUC]. Again the point was made that, "The real experts haven't been consulted... People coming out from the company make mistakes because they don't consult" [9: UC]. Although usually made somewhat differently, such a point is commonplace amongst academics and the HSC/E (Foster and Woolfson, 1993, HSC, 1994, Tombs, 1991).

Several workers pointed out, however, that they would have been unable to properly to contribute to the safety case had they been invited to, recognising that a quality submission for a safety case can only be made by workers if they are well organised. A number of respondents said that only the trade unions could facilitate proper worker involvement the preparation of safety cases: "Only an organisation can provide a professional input" [5: UC]. "I'm all for trade unions because I realise how bad it is out there, and because

it's probably the only answer ... I can see that the unions getting onto the platforms is the only way for getting any input" [17: SC].

A high proportion talked about management regularly "moving the goalposts" in relation to self determined safety standards when the application of these standards threatened the ability to maintain production, or when considerable cost savings could be made. Some described how parts of the safety case had been amended without consultation with workers. One worker talked about how the level of support boat cover was enshrined in the safety case. On one installation, the operators told the workforce that they intended to cut the number of support vessels in the vicinity and asked what they thought. The unanimous response was that they wanted the status quo, and felt that they would not be as safe working over the side of the platform, in the event of a helicopter ditching, or in the event of a full scale evacuation. The operator replied that it would be safer to have less support vessels due to the reduction in possible collisions between vessels. A group of safety representatives pointed out that the collision rates were of little significance in comparison to other on-site hazards, and that the workforce was not happy with the operators proposal. The cuts in support vessel provision went ahead and now the workers on this particular platform feel that their working environment is less safe. Several of those interviewed stressed their belief that the safety case approach to regulation was not sufficient to protect safety standards from the current cost cutting climate governing the production process: "I think the way of doing things with the safety case is flawed because there is no recognition of the pressure to produce" [1: C]

Offshore Safety Management Since the Implementation of Cullen

Of greatest interest for this paper is the general climate, or culture, that CRINE has helped to establish, and through which its effects will be mediated and perceptions of safety moulded. On the general question of whether safety management had improved since the Piper Alpha disaster, the Cullen report and the resulting safety regime, some of our interviewees believed that standards of safety practice and the priority of safe working practices had improved immediately after Piper Alpha, but that the industry had now began to revert to the complacent attitudes towards safety that had prevailed before. Others believed that nothing had changed to improve the offshore safety regime, or that their workplace had, if anything, become more dangerous. Only one respondent was unconditionally impressed with the action taken by the operator on the platform he worked on. Generally, observations by workers focused on management and oil company attitudes, and what they tended to term the "cost cutting" that is recognised throughout the industry.

Management and Oil Company Attitudes

The majority of respondents viewed the freedom to approach line management with safety concerns on any matter as being the most important element in offshore safety management. As one electrician put it: "The biggest step forward in safety offshore is an open and honest approach to be able to raise safety issues without being scared. All the safety training in the world can't replace openness about reporting safety matters and a workforce that is comfortable about being open" [1: C].

The offshore industry has, however, over the years developed a reputation for authoritarian management (Carson, 1982; Foster and Woolfson, 1993; Wybrow 1982), and an approach to decision making which mistrusts and ignores the expertise of a large section of the workforce (Tombs 1991). The majority of respondents also characterised the management style deployed by installation operators as authoritarian and intimidating, employing a rigid hierarchical structure within which decisions on safety are made without any input from workers at shopfloor level: "The boys don't bother with safety anymore, because if you try to suggest something, you just get the cold stare all the time..... If you kick up too much about safety, you get transferred, or at the very least they muck you about or worse NRB you" [11: C]. Indeed, Foster and

Woolfson have documented the history of offshore employees opposition to formal workforce involvement in offshore safety management (Foster and Woolfson, 1992). The NRB system has been widely used in the past to purge the industry of dissenting voices, or those who speak out on safety and working conditions (New Statesman and Society, 7 September 1990; BBC Scotland, 23 January 1992; The Herald, 2 November 1994).

Central to the perceived disregard for workforce involvement in offshore safety management has been the open hostility traditionally shown to any form of trade union organisation offshore, especially prior to Piper Alpha (Bourgoyne, 1980; Carson, 1982; Wybrow, 1982) although still prevalent today (Foster and Woolfson, 1992; OILC, 1991). Respondents reported that, in general, the operators and contractors in the industry are still opposed to the notion of trade union representation of the workforce. One described how: "You can walk in for a job and the first question is, are you a member of a trade union? Then they ask you to sign a form that says you're not in a union" [9: UC]. Although some of those interviewed said that they were trade union members and that this did not cause any problems, they would not announce the fact in front of management. Almost half of those interviewed talked about the existence of 'blacklists' of known trade unionist that was still used to prevent certain individuals gaining employment offshore.

Although there was a disparity of opinion on the degree of change in management style and safety culture in the industry since the publication of Cullen and the implementation of the new regime, a large majority of respondents held the view that offshore workers are still unable to approach line management with safety concerns for fear of reprisal. Some reported that they had simply been told not to mention a particular problem or incident when they left the platform: "We were told in a safety committee meeting where the rig superintendent was in control that we have to keep all of our safety concerns inside the company because it is sensitive" [3: SUC].

Some said that they would not raise any problems with immediate supervisors because they were aware that anybody in their position could be got rid of at any time: "You get told to stop rocking the boat by management all the time. People just disappear" [11: C]. Others reported having been NRBd or sacked for drawing attention to a safety related problem. One respondent who was also a safety representative was dismissed for raising a safety issue with his supervisor outside the formal confines of the safety committee system. He raised a safety concern with the OIM, who also happened to be in charge of the job concerned. The respondent had noticed that air winches were being used to lift heavy equipment. These winches are designed only for carrying one person at a time ('man riding'), and as an elected safety representative, he asked that the OIM ensured that the winches be used only for the purpose that they were designed for. The OIM responded by telling him to shut up and that he was to "stick it or quit". Shortly after this incident, the respondent requested a transfer to another platform. Two days later, he returned to the beach at the end of his trip and was told on reaching Aberdeen that he was not required back.

A fear of dismissal was invariably cited as the reason to "keep your mouth shut for two weeks" [14: C] instead of reporting specific hazards to management or taking a pro-active approach to safety on the platform. One example of this was cited by a contract welder. He recalled how on a recent trip, an abseiler who had attained level 3 of the offshore abseiling certificate was being told how to conduct a job which involved abseiling over the side. The individual who was instructing him was also a qualified abseiler, but only to level 1. He was a senior supervisor employed by the operator. The level 3 abseiler was not happy doing the job in the manner he had been told and believed he was at risk. He was however, forced to continue the job because he was afraid of disobeying his superior's instructions: "He's putting himself at risk because of the system. Everything is going against the guy who is being given false instructions because he's powerless." [5: UC].

This fear of dismissal is compounded by the general policy of reducing the size of the workforce (on the latter, see Lloyds List, 29 Mar. 1995). When there are fewer jobs, and competition for them is greater, workers become increasingly more disposable. Respondents, both those employed by contractors and those employed by the operators, in general believed that the employers were exploiting new levels of downmanning and the further shift towards contacted labour to their advantage. Reports that rumours of redundancies and pay cuts were being used to "keep workers on their toes" [2: O] were widespread. It was this issue in particular that prompted some to indicate that workers are becoming more excluded from the offshore safety management process that they ever have been before: "People say that love is the strongest emotion, but fear is greater. You'll get a guy who'll fight lions to get into the pub. But when his mortgage is in threat and his family's livelihood, especially in a country where there's nothing else for people to turn to, there's no jobs, he'll keep his mouth shut. What do you expect?" [3: SUC].

A slightly different concern was expressed by some respondents in relation to the structural changes in the industry and the increasing use of contract company, as opposed to operator, personnel. The trend to transfer management of more of the larger operations to contract companies (Scotland on Sunday, Sept. 18 1994) seems also to herald an increase in the presence of contracted workers, managers and supervisors on each platform. Contract managers are perceived as being tougher and more ruthless in dealing with those below them in the hierarchy and are widely viewed as the principal protagonists of the NRB. Contract company workers, in turn, are most vulnerable to the NRB. One operator employee told of how a contract worker was caught smoking in a section of the platform designated as no-smoking. The operator's maintenance manager told the worker's supervisor to let him off with a warning. The contract supervisor replied that the worker would be sacked at the end of his trip. "Usually, if you work for the [operating] company, you make three mistakes, a report goes on your file, and on the third warning, if you make another mistake, you're out. Quite often with them [contract workers], it's one mistake and you're out" [2: O]. If such a "mistake" has the potential to lead to a life threatening accident, and resulted from a clear violation of safety procedures, then one would have considerable sympathy with a hard-line managerial approach. However, such "toughness" needs to be tempered with attempts by management to ensure that they are themselves open to criticism when the situation dictates. This can be achieved via worker co-operation through the effective utilisation of uninhibited safety committees, where members do not feel inhibited about speaking openly about safety-related problems. If this requires the recognition of trades unions then it would seem a small price to pay for improved safety.

Respondents were also concerned at the pressure being created by the increasing requirement for workers to become skilled in more than one type of job. This was identified as a general trend on the majority of offshore installations and referred to some of those interviewed as 'multiskilling.' Examples of this included a maintenance crew on one platform being told to erect scaffolding, and on another platform, crane mechanics with no experience of operating cranes now working as crane drivers.

Cost Cutting

The readjustment of the organisational structure of the industry was, unsurprisingly, seen by respondents as a central tenet of an initiative by operators to cut operational costs across the North sea. The organisational impact of cost cutting is, however, perceived as being only part of a threat to safety that is being introduced by the whole package of current cost cutting and comprises a number of components which directly pose problems for the creation of, or for the maintaining of a safe working environment offshore.

Other consequences of "cost cutting" having a immediate impact on safety conditions were identified by respondents as:

1. Cuts in planned maintenance programmes were reported on a number of platforms: "It's ridiculous. It's being cut down to the bare bones...It's the oldest [platforms] that they are running into the ground, and that's the ones that need more..." [2: O]; "It's like working on a time bomb, but it just comes down to cost cutting. They're playing a gamble. The gamble is money to them, but to us it's people's lives" [20: C].

2. Reduction in the duration of the industry standard RGIT offshore safety and survival course and the associated refresher course. The compulsory safety and survival course is to be cut from 4 days to 2 days and the refresher course has also been shortened (*Scotland on Sunday*, 2 Oct. 1994; *Lloyds List*, 7 Feb. 1995). In addition, there is an increasing requirement of workers to pay for the safety and survival course where previously the employer had done so. Several respondents believed that the majority of offshore workers are now paying for their own RGIT certificate in their own time.

3. Increasingly, offshore workers are being required to attend safety training (such as permit to work or firefighting courses) in their own time at a basic rate of pay or less. In some cases, these courses have to be paid for by workers as a requirement of their terms of employment. One respondent told of how he was only given accommodation expenses for a 3 day course [9: UC].

4. Reduction of support vessel cover for installations. In many cases, support vessels are now being required to guard two platforms where previously there was one vessel allocated to each platform (OILC, 1990). This is a deeply unpopular move amongst offshore workers, and respondents agreed without exception that support vessels were a vital element of a safer working environment: "Every rig should have a standby boat as a basic safety requirement." [17: SC] One support vessel worker pointed out the impracticality of guarding more than one platform: "How can you cover two rigs? If you've got to cover two rigs, it's impossible with the time factor. The oil companies say time is money. But time is lives if somebody goes in the water." [18: C]

5. The move by at least two major operating companies towards the use of 3 weeks on and 3 weeks off working shifts where previously workers were working 2 week shifts. This was perceived as a precursor to an industry-wide trend and was unanimously viewed by respondents as a threat to safe working conditions: "3 weeks working and you're going to get hurt, and people are getting hurt. It's quite surprising how many people get injured on the final shift" [10: C]. "UKOOA say the change to 3 weeks on, 3 weeks off is because of safety and the reduction of helicopter flights. That's absolute lies. The only logic they use is profit" [1: C].

6. Increasing reluctance of operators and contractors to issue personal safety equipment (such as boiler suits, hard hats, safety boots and safety goggles) as it is required. Some contract companies were reported to demand that employees supply their own personal safety gear. One interviewee who had experience of working on a Norwegian platform recounted that all necessary safety equipment was readily available on demand. At the end of the trip, the British workers would keep their old worn out safety gear and take it home in their kit bag. It was also common for British workers to steal tools out of the storerooms because they knew that if their next trip was on a platform in the UK sector, there would be a shortage of tools. "You were totally degraded.....We were just made to feel like animals. And if you treat people like animals, then they behave like animals" [5: UC].

CONCLUSIONS

The conclusions from the preliminary interviews undertaken to-date suggest that the contributions and knowledge of offshore workers are still not being utilised effectively in the process of safety organisation. The new safety representatives and safety committee regulations have not resulted in any greater confidence on the part of workers that safety issues can be raised, with a key weakness being the lack of organisational support in the form of a recognised trade union. Similarly, workers have indicated that, although consultation over (let alone participation in) safety cases has been more apparent than real, the absence of as formal organisational basis for workers would make genuine participation problematic even if the opportunity existed. These continued failings need to be understood within a general climate in which fear and mistrust continues to prevail. Perceptions of such a climate hardly seem unfounded: the NRB system persists; contract labour continues to provide the vast (and increasing) majority of the offshore workforce; hostility towards trades unions remains; and workers have witnessed what they perceive to be tangible evidence of a lack of operator commitment to safety in the form of reduced maintenance, some requirement for self-funding training, withdrawal of standby vessels, and an emerging, fatigue-inducing, and therefore unsafe, shift pattern. All in all, on the basis of the evidence presented here, if there is any perception of a new era offshore, then this relates to what was commonly referred to as cost-cutting rather than occupational safety. This is not to say that the respondents identified no improvements within the latter; however, it is to recognise that there was widespread cynicism and disappointment amongst them.

Of course, as we have emphasised at several points, these respondents cannot be taken as necessarily representative of a workforce of thousands; yet nor can their views simply be disregarded. Moreover, as certain issues indicate, such as the general CRINE initiative, or the particular controversy over standby vessels, the views represented cannot be dismissed as wholly inaccurate.

At best, it seems that neither the regulators nor the operators are managing to communicate the nature of the new safety regime effectively. What we have documented here may simply be indicators of differences in perception. But even on this generous interpretation, it remains to be emphasised that perceptions matter. Workers who feel that their safety is not being treated effectively, or who fear the effects of cost-cutting, or who bemoan an inability to participate in the process of safety organisation, are likely to be obstacles to the 'new era' that operators may be seeking to establish. For example, if there really are areas of complementarity between efficiency, quality and safety, then these will not be developed where workers do not feel their working environment to be safe or getting safer. The challenge thereby posed for operators is one of genuinely involving workers in safety organisation, and of developing effective means of dialogue with all workers' groups. One aspect of this challenge has to be to abandon the almost-Victorian opposition to recognising trades unions.

At worst, it may be that the views represented here capture a reality, in the sense that there have been no real improvements offshore in safety management since Piper Alpha, Cullen or the Offshore Safety Act. If this is the case, then there is no reason to assume that another Piper, or mini-Pipers, will not occur. Even leaving aside the human consequences of such a tragedy, from the point of view of the economic interests of many offshore oil operators, the costs of such a disaster could be unsustainable. The clear challenge here is to recognise that while investment in safety hardware, and organisational systems (which include training and adequate channels of participation and communication) may appear to represent an unequivocal expenditure with no tangible return, the costs of not making such investment are certain to be far greater, if equally incalculable (Smith, 1995).

For us, the findings reported in this paper are suggest an agenda for immediate action by operators and regulators alike. In fundamental terms, Cullen's recommendations did nothing to address the fundamental issues of highly unequal sets of power relations offshore (Tombs, 1991) and these can be held to sit at the heart of the problem as perceived by our sample of workers. Since the publication of the Cullen recommendations, the emergence of CRINE and a renewed Government commitment to deregulation have shifted the balance of power further in favour of the operating companies. In a continuation of this study, we aim to interrogate these findings further, assessing the extent to which they represent a working reality for offshore workers, across installations, companies, functions. Further, we intend to examine understandings of the safety regime within the management of operating and contract companies, and amongst regulators. We may yet be surprised by what we find. However, at present, the words of one of the respondents seem depressingly appropriate: "It's the Emperor's new clothes; look at his clothes, look at his clothes, look at safety, look at safety. And it's not there at all. I don't think there's any political will to sort things out." [1: C]

NOTES

[1] This pilot stage consisted of 23 in-depth interviews conducted with offshore workers between 25 February and 16 March 1995. A mixture of interviews with individuals and interviews with small groups of workers were conducted. A total of 34 people were included in the sample (16 with individuals and 18 in a small group situation).

The sample of interviewees was gathered from two sources. Firstly, the group of trade union members were recruited in one of the trade union social clubs in Aberdeen, and secondly, the larger group of non-trade union members were recruited from three public houses normally frequented by offshore workers before and after their trip offshore. Interviewees were selected on the basis that a the total sample reflected the variety and depth of experience held by those working in the industry.

The interviews included those who had experience as supervisors on offshore installations, and those who had worked at shop floor level in a variety of disciplines: welders, drillers, electricians, engineers, technicians, caterers, and support vessel workers. In addition, the interviews included those employed by the operators, and those employed by the contract companies; those who had worked during the hook up phase of operation and during production; those who had worked offshore for as much as 18 years and as little as 2 years; and those who had worked on 20 year old platforms and those on the newest platforms in the North Sea. Also included in the sample were 10 trade union members and 4 people who had experience of being an elected safety representative.

Interviews were conducted on a semi-structured basis. A copy of the interview schedule which was used to guide the structure of the interviews and to prompt responses can be found in the appendix at the end of this paper. The lenghth of time taken to complete interviews lasted between three quarters of an hour and two hours.

The reference system used for attributing quotes obtained during interviews includes the interview number in square brackets following each quote. In addition, the following symbols are used to supply information about the respondents:
S denotes that the respondent has been **an elected safety representative** on an offshore installation;
U denotes that the respondent was a **member of a trade union** at the time of interview;
O denotes that the respondent is or has normally been **employed by an operating company**;
C denotes that the respondent is or has normally been **employed by an contract company**.

Only one interview (17) included respondents from different categories. Both were non-union contract workers and one had been an elected safety representative. The individual quoted is indicated using the same notation.

REFERENCES

BBC TV Scotland Focal Point, The Hidden Agenda, 23 January 1992.

Bourgoyne Committee (1980) Report into Offshore Safety, Cm 7366, London: HMSO.

Carson, WG (1982) The Other Price of Britain's Oil, Oxford: Martin Robertson.

CRINE. Cost Reduction Initiative for the New Era.

The Hon. Lord Cullen (1990) The Public Enquiry into the Piper Alpha Disaster, Cm 1310, London: HMSO.

Eggar, T. (1994) The Cultural Challenge Ahead, in Crinewatch, August 1994.

Elliot, R. (1990) 'Provisional Cost Implications. A contractor's view, paper presented at the IChemE symposium Piper Alpha - Lessons for Life-Cycle Management, 26-27 September.

Foster, J and Woolfson, C (1992) Trade Unionism and Health and Safety Rights in Britain's Offshore Oil Industry, London: International Centre for Trade Union Rights.

Foster, J and Woolfson, C (1993) Workforce Involvement and Health and Safety Offshore, in Proceedings of the International Conference, Workforce Involvement and Health and Safety Offshore, Glasgow: STUC.

Harvie, C. (1994) Fool's Gold. The Story of North Sea Oil, London: Hamish Hamilton.

HSE Oil Industry Advisory Committee (1991), Guidance on Permit-to-Work Systems in the Petroleum Industry, London: HMSO.

HSC Oil Industry Advisory Committee (1994) Play Your Part! How Offshore Workers can help improve Health and Safety, London: HSE.

Kharbander, O.P. and Stallworthy, E.A. (1991) Industrial disasters - Will Self-Regulation work? Long Range Planning, 24 (3), pp. 84-89.

OILC (1991) Striking Out: new directions for offshore workers, Aberdeen: Offshore Information Centre.

OILC (1994) Safety Auditing from Below, Paper presented to the Conference on Human factors in Offshore safety, Aberdeen, 27-28 September.

Redmond, T.C. (1990) Piper Alpha - Cost of the Lessons, in Piper Alpha - Lessons for Life-Cycle Management, Rugby: ICheme.

Smith, D. (1995) The Dark Side of Excellence: managing strategic failures, in Thompson, J., ed., Handbook of Strategic Management, London: Butterworth-Heinemann.

Smith, D. and Tombs, S. (1995) Self regulation as a control strategy for Major Hazards, Journal of Management Studies (forthcoming)

Spaven, M. Ras, H. Morrison, A. and Wright, C. (1993) The Effectiveness of Offshore Safety Representatives and Safety Committees: a report to the Health and Safety Executive, London: HSE.

Tombs, S (1990) Industrial Injuries in British Manufacturing, Sociological Review, May.

Tombs, S. (1991) Piper Alpha and the Cullen Inquiry. Beyond "Distorted Communication"?, in Cox, R.F. and Walter, M.H., eds., Offshore Safety and Reliability, London: Elsevier Applied Science.

Tuft, V. (1994a) Partners in CRINE, Crinewatch, August.

Tuft, V. (1994b) President's Day Address. CRINE - Cost Reduction Initiative for the New Era, London: Marine Management Holdings Ltd.

Wright, C.(1994) A Fallible Safety System: institutionalised irrationality in the offshore oil and gas industry, Sociological Review, February.

Wybrow, P (1982) Scottish Labour Movement and the Offshore Oil Industry, in Dickson, T., ed., Capital and Class in Scotland, Edinburgh: John Donald.

APPENDIX

Interview Schedule-Workers.

Introduction

Background to interviewee's position as an offshore worker-what job do you do-how long have you been in this job-what type of organisation employs you.

General

How has offshore safety management changed since Piper Alpha? Has the process of change been noticeable on the platforms?
- -Amongst other workers
- -Amongst managers and supervisors
- -A general change in the priority of safe working practices?

How has your job changed?
- -Organisational restructuring.
- -Training.
- -Working with new technology/new safety equipment and control systems.

Does the general approach to safety vary significantly from installation to installation or operator to operator (based upon direct/indirect experience)? How? Examples.

Do you have an input into the way that general safety procedures and practices are implemented and monitored? What type of input? How often does this happen?

How effective do you think these inputs are?

Safety Case and Safety Management Systems

Have you been involved in the preparation of safety cases/safety assessments? Or in the preparation of a safety management system?

How effective do you think the safety management system approach is in a day to day operational situation and in a crisis situation?: examples of when safety management system has been effective and when it has broken down.

Safety Committees

Experience of being a safety representative or of working with other safety representatives.

How effective is the system of safety representatives and safety committees?
-At responding to immediate and long term concerns?
-At providing a forum for workers to raise grievances/suggestions for improvement?
-Do the decisions of the safety committee carry weight with the operator?
-Evidence/examples of this?

How are workers encouraged to take part in safety committees? Both as a safety representative and in using the safety representatives as a channel for raising issues?

Trade Unions

Are offshore workers able to join trade unions? examples.

Are you in a union? Any problems with maintaining trade union membership/non-membership?

Is there a shop steward/trade union representative on your platform?

Training

What form of training have you received since you started working offshore? In the last 2 years?
-In-house training by employer.
-Specialist training e.g. RGIT certificate.
-Training on the installation.

Have you received training on safety procedures and practices?

Do you feel that the training that you or those you work with have received has been adequate? What training that you have not received do you think would be useful/desirable.

Working on the Installation

How do you rate the safety practices on the platform you work on now?
-Awareness of safety procedures amongst those you work with.
-Response to accidents and incidents.
-Communication between workers and supervisors on operational matters?

Can you report safety concerns to line management or to your supervisor? examples.

Do line management or supervisors report back when they have acted on safety concerns? examples.

Have you reported concerns elsewhere? e.g. trade union, HSE hotline.

Management of the Installation

What is the usual company response to accidents and incidents? Examples.

How does the company ensure that safety procedures are being observed on a day to day basis at every level, including the OIM.

Nature of communications systems between managers/supervisors and workers on the installation.

How does the company ensure that contract workers are integrated into operators safety management systems? e.g. recruitment and training procedures.