Accidents and Safety in New Zealand Logging: The Central Role of the Contractor

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Abstract

New Zealand logging has a high accident rate which has concerned health and safety personnel, accident insurers, researchers and members of the industry. Efforts to reduce logging accidents and to promote safety, have included development of better equipment and training methods, and understanding of patterns of accident occurrence. The research to date has been mainly quantitative, and focused on individual factors. The aim of the present study was to develop an understanding of the social processes which surround logging accidents to provide a broader perspective of accident causation and its implications for safety promotion.

47 loggers and 32 logging contractors from three regions of New Zealand participated in unstructured interviews which were recorded, transcribed and coded with the assistance of NUD.IST, a computer programme. Personal observations in the workplace and numerous informal discussions with a range of industry personnel, complemented the interviews. The qualitative methodology, Grounded Theory (Strauss & Corbin, 1990), was chosen to analyse the data.

The results show that loggers perceive that individual factors such as risk-taking, violation of regulations, training, experience, equipment used, and the physical environment affect safety. The analysis of the data revealed that the impact of all these factors is moderated by the contractor who, in such an isolated environment, has a dominant role in the crew culture. The ability of the contractor to organise and motivate workers so that time can be allowed for learning and using appropriate techniques was critical to the safety of the crew. Frequent restructuring of the logging industry, together with falling log prices, have created instability which has impinged on the ability of contractors to run their crews safely. Increased expectations for production have placed pressure on safety systems. Some contractors managed to maintain safety through a proactive approach to training , efficient systems, and a positive safety culture while still being able to improve production. There is a widening gap between contractors who have responded proactively to the changes and those who have resisted them and struggled to manage in the new environment.

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Identification of participants

Note: All the names of loggers, contractors, bush inspectors, and other personnel referred to in the text have been changed to prevent identification of participants. Names of logging contracting crews have also been changed. Place names have been changed where identification of persons might otherwise occur. Large forest company names have been changed where it might assist in identification of individuals.

Vignette 1

Factory without a roof

You need permission to go up this hill - narrow and dusty and steep. I make it to the top without meeting a logging truck coming down, feeling pretty hyped by adrenaline and dust in my mouth. A sign says "Falling in process, do not pass". I wander the other way, towards the sound of chainsaws, and find two fellers cutting tall straight trees across a felling face, which brings the trees down towards the road. One smiles and stops his saw. He says he'll take me down to the boss in the ute. We drive to the sign where he uses the radio telephone to get permission to come through. When we arrive at the skid site he solemnly hands me a hard hat and fluro-vest and grins. "You don't go nowhere here without this, mate."

Selwyn, the contractor, is talking to the driver of a hydraulic grapple skidder - standing in the middle of the skid. There are two excavator skidders moving backwards and forwards up the slopes to where the mechanical harvester - a Warratah - is felling trees and shredding the branches from them automatically , in a continuous motion. One skidder is completely employed keeping up with the Warratah, dragging the piles of logs down to the skid site for processing. The other services the manual fellers - the men I met earlier - who are working on slopes too steep for the harvester.

The skid site is huge and laid out like a mill yard - neat piles of evenly sized logs, all marked with coloured symbols indicating size, grade, and destination. A truck rumbles in and a loader spins round to begin heaping logs from one of the piles onto its back. Within minutes it is full and before the driver has tied the load down another truck has arrived and the loader moves on to this task. Men in the bright fluro-vests move about the skid, chainsaws whirring, spray cans and tapes at the ready. The logs are marked, cut, trimmed, and expertly manoeuvred onto the appropriate stack. Selwyn moves around the site, talking, listening, nodding, all the while making notes in a small book. He seems unhurried but purposeful. Finally he has time to greet me. "Hi - good to see the vest Steve - the supervisor will be here any minute and you'd be out the bush in a second without it. They're real tough on safety here and its a damn good thing." He checks that my boots have steel toecaps, and gives me a few instructions on where to stand, where I can and can't go, what to watch out for.

We climb up through the trees to the manual fellers. 'This is the danger area,' says Selwyn, 'all the trimmed branches lying everywhere - what we call the slash - no matter how careful you are you can make that one mistake and Bingo - you've sliced your leg.' The fellers are moving along the side of the log, trimming branches, clambering in and out of the slash. They are wearing new, unripped chainsaw trousers - their chainsaws look new and well maintained. Visors down on their hard hats, ear muffs blocking the noise, they work rhythmically and with obvious skill. One feller stops and we chat briefly. He is hoping Selwyn will go over his tree felling stage two module at smoko. He has six modules and is keen to get more - especially 'windthrow' - he likes working in the windthrown trees, which are very dangerous, but wants to be well trained for it. He's heard of the deaths that occurred during the aftermath of Cyclone Bola when untrained men worked in the chaotic windthrow down near Whakatane.

Back at the skid the trucks come and go. Selwyn is working on a new system for co-ordinating the skidder and loader so that it is easier fleeting the logs and reducing the clutter in one part of the skid. This is designated an environmentally sensitive forest block, and Selwyn has been chosen by the company to log it because of his special skills and ability to plan extraction efficiently but with little damage. He is trying to specialise in this field because he thinks it is the way of the future. He wants a well trained, safe crew, that puts out as much wood as possible with as little disruption as possible. "I'm always trying to be one step ahead of the company - I try to anticipate what will happen in the industry and make my move before the other crews. That gives me the edge."

Selwyn sees worker-relations as paramount - later in interviews his employees all agree that he is a really good boss and it's the best job they've ever had. "I used to have a hell of a temper, and go off at the guys. But then I made a conscious decision to not get angry at them. I take a breath and walk off if I feel frustrated. And my operation runs the better for it. I produce more, I haven't had a notifiable accident in five years and I have a low staff turnover - which I think is a pretty good indication of a happy crew. " I look around - everything is immaculate, running like clockwork. As one logger for another crew remarks to me rather laconically later, and with perhaps a tinge of envy, "Bloody factory without a roof, mate."

Vignette 2

Up in the fringe woodlots

The road follows a narrow gorge as the hills grow steeper and the road twists deeper into the valley. In the summer this valley is clouded with dust from logging trucks and farmers cars. But in the winter the surface is greasy and water runs across the road at frequent intervals. The valley finally comes to an end and the road climbs upwards, deep into the hills and bush.

In the distance is a truck beside a freshly carved track. Clay and mud. Beyond is a scarred hillside, scattered trees sticking up from the steep sidling like remnant bones. Littering the face of the hill are the remains of logs, broken and split, heaped untidily in rough piles.

The track stretches away to the right, across a ford through the mud and a swollen creek. Suddenly around the corner comes a skidder, tyres spinning and rubber burning in the slush. The skidder lurches by. Tyres bald, diesel belching, joints rattling and hydraulic arms slopping and oozing oil. It shudders to a halt and Josh leaps off. He grins ruefully. " You come at just the wrong time " he proclaims. " You won't like what you see round the corner. Thank God you're not a bush inspector." Josh clambers onto an old bulldozer up the hill, and fires it up. It coughs into life, black diesel belching skyward. With a signal from his free hand Josh directs me to follow.

The track hugs the hill side, narrow to the point where I amaze at the daring of Josh - in places the road is shored up with small logs, some of which break away and roll into the gully as the bulldozer lurches along. Water cascades across the track in several places, trees hold on precariously to the bank above the road, roots exposed by the cut in the hill.

We climb steeply up to a clearing at the head of a gully where an old truck waits. A relic of logging days I thought were well passed. Mud is everywhere, and the small truck is stuck. The driver looks at me with much suspicion as I approach so I introduce myself as the bush inspector. He jerks back and Josh laughs uproariously. "Nah he's a boffin from Massey," Josh assures him, and then Ben laughs too. He jabs his thumb in the direction of some machinery tracks which lead over the edge of the skid site. I peer over and see to my horror a log loader twenty metres down the hill. Clutching onto the steering wheel is a man who is later introduced to me as Jack. He

looks more than a little apprehensive as he waits for help. He hasn't dared move. The loader is balanced precariously on an old log which sticks out of the gully. A wrong move and it will be gone another fifty feet to the bottom. "A hydraulic hose blew. We'd been using the forks as a brake," explained Josh. "Lucky these fullas are here really. I was working by myself until an hour ago and if I'd gone over I think I'd be history now."

I'm given the task of clambering down the fill to where the loader hangs. Ben feeds the rope out while Josh sits in the bulldozer, ready to take the strain. I very gingerly pass the wire rope around the nearest solid piece of the machine and then fasten the shackle. I scramble out the way and yell to Ben who signals to Josh and the bulldozer moves forward. The rope tightens and relief spreads across Jack's face. I struggle back up to the skid site and for the next half hour watch as Josh rears and bucks the old dozer, and the loader steadfastly refuses to be dragged back to safety. The tracks of the dozer dig deeper and deeper into the clay, and a small spring on the top side of the skid site begins to flow into the deepening ruts. Mud spits out from the tracks. Finally Josh digs the blade of the tractor so deep into the ground that it grips and as the water flows up and around the tracks he manages to winch the groaning skidder back up to a horizontal plane.

Jack tumbles off the loader, His face wet with sweat and yet as pale as a ghost. He looks shattered. Josh beams with pleasure. "Close one, close one'" he chortles. Ben shifts nervously one foot then the other. He is obviously uneasy. "If we get any more of this rain I've had it, " he declares. Jack says nothing. His shaky hand pours some tepid tea from a flask into a tin can he uses for a cup and he gulps it down. He subsides onto a log, still ashen and trembling, while Josh sets about replacing a hydraulic hose.

Jack had been loading and the loader had slipped out of gear, rolling half over the edge. Jack had thrown himself clear. "Lucky he didn't have a seat belt, see " says Josh. Then the loader had stopped and he'd got back on so they could pull it back up with the truck. However, instead of pulling the loader out they had nearly managed to drag the truck into the gully too. The shaking of the loose fill in the gully had made the loader slip further and further down the gully. At the last minute the loader had caught on a log half way down the gully and with Jack hardly daring to breathe Josh had taken off to get the bulldozer. Which was when I had come on the scene.

We sit and drink nearly cold tea. The rain which had been a light mist settles into a heavier shower and we shift to the shelter of the truck. "Shit!' says Josh suddenly. He leaps onto the

loader and, sluing and slipping in the mud, steers the machine in crazy arcs as he struggles to load logs onto the truck. Several times the loader comes close to the edge of the gully and Josh has to drop the forks down to prevent himself toppling off the lip. He revs the loader to a scream and mud boils up as it mixes with the rapidly gathering rain water. Time and again the loader seems inextricably bogged in the mud but somehow, with much bucking and rearing, Josh crawls up out of the mire and continues to load. Finally he has as much on as Ben will allow. "Enough," yells Ben and Josh somewhat reluctantly ceases the loading. He gives Ben's truck a shove from behind and it heaves itself out of the deep ruts and lumbers off down the slippery track.

Josh and I squelch our way through the mud to a hill face where scores of big logs are lying. Several are across the face of the hill rather than lying vertically. I ask Josh what would happen if he tried to limb them on that slope. He grins mischievously and says that was precisely what he intends to do. He clambers up the hill to one such log, and obviously showing a large degree of bravado for my benefit, proceeds to whip the branches off the tree. As he works along the hill it becomes apparent that sooner or later those branches which hold the log from rolling will be cut. And sure enough they are. The log rolls, bounces, then leaps high and crashes down the hill. Josh beams with pleasure once more. He follows the half trimmed tree down the hill and finishes the job. "No trouble. I spose I get a kick out of facing the challenge when it's dangerous -and beating it," he says.

He prefers to work on his own. No worries about ACC and training, no worries about having slackers on the job. He knows he isn't meant to work by himself but he's never been visited by the bush inspector and the day they force him into the mould is the day he would give up. He'd had a few employees but they broke your bloody machinery, and wanted more pay than he got himself. He wore a hard-hat sometimes but only cutting little trees. If you want time to get out the way of a big tree you need to be able to hear it when it begins to fall, so no hat and no ear muffs. His chainsaw trousers, which he calls 'chaps', are ragged and old. but he wears them. Almost like a badge. No mitt on his saw, no helmet visor. And his saw is as old as he is. The work he does is spasmodic and on the fringes, going where few contractors would dare, taking risks and working on an impossibly tight margin. The bank takes most of his profit in payment for his worn out machinery. But he loves the life. The risks. The challenge. And the freedom.