PPI

OHS benchmarking workbook RPDA.211

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MEAT & LIVESTOCK
AUSTRALIA

Project Objectives

The project objective was to provide training and facilitation services to the OHS Best Practice Project at Q Meat Toowoomba. The Project was to include the development of an ergonomic assessment process which assessed tasks in the meat processing plant.

Current Situation

According to OHS Performance Meat and Meat Manufacturing Industry provided by the National Occupational Health sand Safety Commission the health and safety performance of the industry remains poor. The incidence rates are 7 times the national rate and trends over 1991-92 and 1994-95 imply that this is an increasing trend with 12 times the national average rate predicted by 2000. The current level of compensation costs are estimated at $59 million annually, implying a total cost to the Australian economy of $ 250 million of which $100 million is born by employers.

Sprains and strains of joints and adjacent muscles was involved in nearly 40% of all cases and accounted for almost half of the total compensable working days lost, at an average of 34 days lost per occurrence. The direct costs involved were about 25% higher than the average costs for other injuries. Disorders of muscles, tendons and other soft tissue accounted for just under 5% of cases but with an average of 48 working days lost.

Causes

About 25% of strain injuries are caused from lifting, carrying, putting down or handling offal and waste products, 12% are from slips, trips and falls, and 10% are from knife handling.

It is not cost effective to expect that enterprises can "buy in" the expertise to address all the workplace issues that are involved as casual factors in sprain/strain injuries. There is also anecdotal evidence that where ergonomics experts, with little or no industry experience, review meat industry enterprises they tend to have unrealistic expectations about what can be accomplished. Review by statutory bodies can result in problems being highlighted but no solutions being offered. Totally impractical solutions may be offered such as recommendations to change the working height. As this would necessitate changing the height of the chain in most cases it is not something to be undertaken lightly. Solutions should accept that in many cases reduction of risk is the best that can be achieved in the short term. Elimination of risk be altering chain heights is usually a long term solution due to the capital costs involved.

Therefore there is a need to develop a resource that allows enterprises to independently identify ergonomic issues and work to wards their resolution. The resolutions developed should be practical within the working and economic environment of the enterprise and should seek to reduce risk where total elimination of risk is not immediately possible.

Key Assumptions

Q Meat Brisbane has had very positive results from Process Improvement Teams that were established as part of the first phase of the MRC OHS Best Practice. One of the main outcomes of these teams is that employees

- are now prepared to be actively involved in problem solving,
- are willing to share information and offer solutions
- have ownership of the proposed solutions

The key assumptions for this project were that employees would be available for both training and participation in the continuous improvement groups.

Research Methodology

The methodology for this project is based on the training in ergonomic assessment and problem solving techniques. The trainees were to consist of a Project Focus Group and Continuous Improvement Teams. The training was workplace based and consisted of identifying ergonomic issues and working towards their resolution. These activities were facilitated by the researcher. The flowchart given in figure represents the methodology for the Project. The detailed methodology is given in Appendix 1.

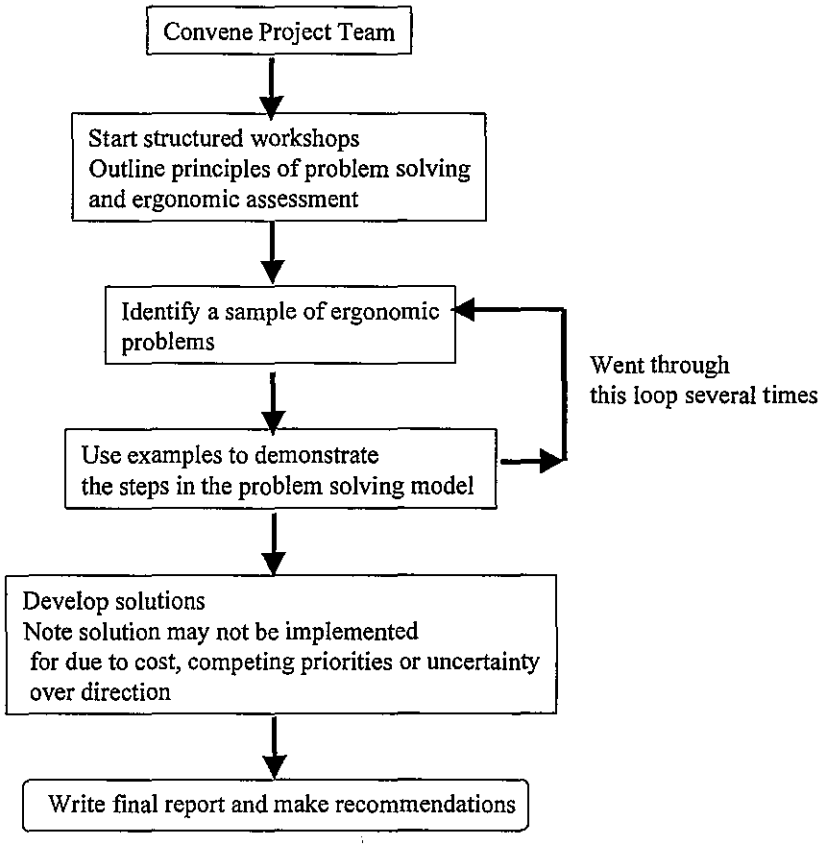


Figure 1 Flowchart of the methodology used for the project

Findings and Observations

The workshops

The Structured workshops in ergonomic assessment and problem solving were interrupted due to the re-structure of the management team and the project was "on hold" for about 3 months. Despite the delay in the schedule the workshops were a worthwhile exercise because they increased knowledge levels and awareness. Without this background information the specific outcomes of the project would not have been achieved.

The problem solving workshops

The problem solving techniques were readily accepted, although there was the common tendency to jump straight the solution stage of the model without fully analysing the problem and without considering the adverse consequence of the preferred solution. The example of the block which is discussed below proved to be a good learning experience that created a deeper understanding of the necessity of completing each step in the problem solving process. The problem identification phase led to the creation of the Project Tasklist (Appendix 2). The list was created by checking with every employee on a one to one basis. Individual concerns were then listed.

The list was reviewed and added to during the life of the project and served three main purposes. Firstly it categorised the problems identified into Safety, Maintenance and Project issues. This was appropriate as not all the issues identified fell within the parameters of the Project. It was also felt that Safety issues should be addressed by processes that were already in place. Still other issues fell outside both these categories, for example the maintenance issues.

Secondly the list served a rough measure of progress. Since some problems were more complex than others issues were not necessarily resolved in the order in which they arose. Not withstanding, the list was useful to monitor progress. Finally the list update were posted on the notice board as a way of keeping all employees informed. Admittedly this is not an ideal method of communication but it appears to have been useful.

The ergonomic assessment workshops

The ergonomic assessment workshops were also readily accepted. However, it quickly became apparent however that having grasped the basic information, the focus group had no interest in learning technical terms or in completing the structured Ergonomic Task Analysis Form (see Appendix 3). The main resource used in the workshops, after a brief introduction of the topics, was photo+s of various jobs on the slaughter floor. Whether a job was acceptable or not in ergonomic terms quickly evolved into 20° rule. If the person doing the job had to move their wrist, elbow shoulder or bend or twist more than 20° the job was automatically suspect. The number of times the movement was performed and the amount of effort involved was then considered. Highly repetitive tasks, especially where effort was required, were

reducing the range of movement, lessening the number of repetitions and reducing the load. The focus group identified very early on that with a lot of these issues the fastest way to reduce risk was job rotation (refer to notes of early workshops given in Appendix 4). The 20° rule is a valid means of assessment that requires no specialist knowledge and is easily learned. Probably 90 to 95 % of problems on a slaughter floor could be successfully identified using this method.

Facilitation of Ergonomic solutions

A number of the problems identified have been resolved. However not all the solutions have been implemented. The reason for this is cost, competing priorities and uncertainty over the species to be processed in the future. The ergonomic problems fell into roughly 3 categories.

Simple issues

Firstly there were relatively simple issues such as the block. Here the problem was the possibility of strain injury in stepping up onto a concrete block that was too high. The quickly implemented solution was to cut a step in the end of the block. This action resolved the original problem but created a further problem. The block was now too short for the task to be performed and the person doing the job was overreaching to grasp the product and guide/pull it off the main chain onto the retain rail. There was now the possibility of a strain/sprain injury to arm and shoulder as well as the very real possibility that in overreaching the person would overbalance and fall of the block. The problem was resolved by building a removable (for QA reasons) metal platform that covered half the area of the step. The platform covers half the step so that the step can still be used to gain access to the block Photo 1 shows the block with the removable platform in place.. In implementing this solution the problem solving model was followed. A potential problem was identified, that if the metal platform was too wide the stair would be dangerous because the person stepping up may not have sufficient room for the leading foot to pass the foot on the step and they may trip. This was taken into consideration in deciding the width of the platform.

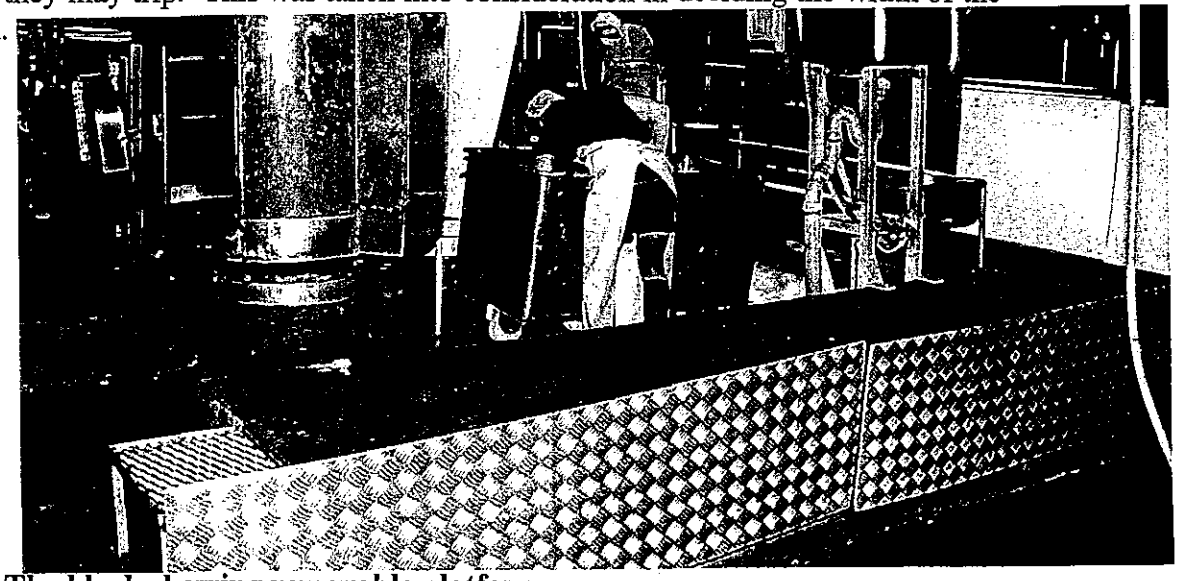


Photo 1 The block showing removable platform.

Unthinking acceptance of poor situations

The next category consisted of jobs that were accepted as reasonable but where ergonomic assessment showed there was potential for improvement at relatively little cost. One such example was an offal wash job where the shower and the sink was too low causing the person to bend awkwardly, see Photo 2. The product is then thrown into a white container sitting inside a large stainless steel barrow. The white container of product has to be lifted out (Photo 3) and carried around the end of the block to be emptied down the chute(Photo 4). The solution here was to lift the shower and put in a small chute to feed into the main chute. The bending and twisting was eliminated and the lifting and empting of the tub was eliminated.

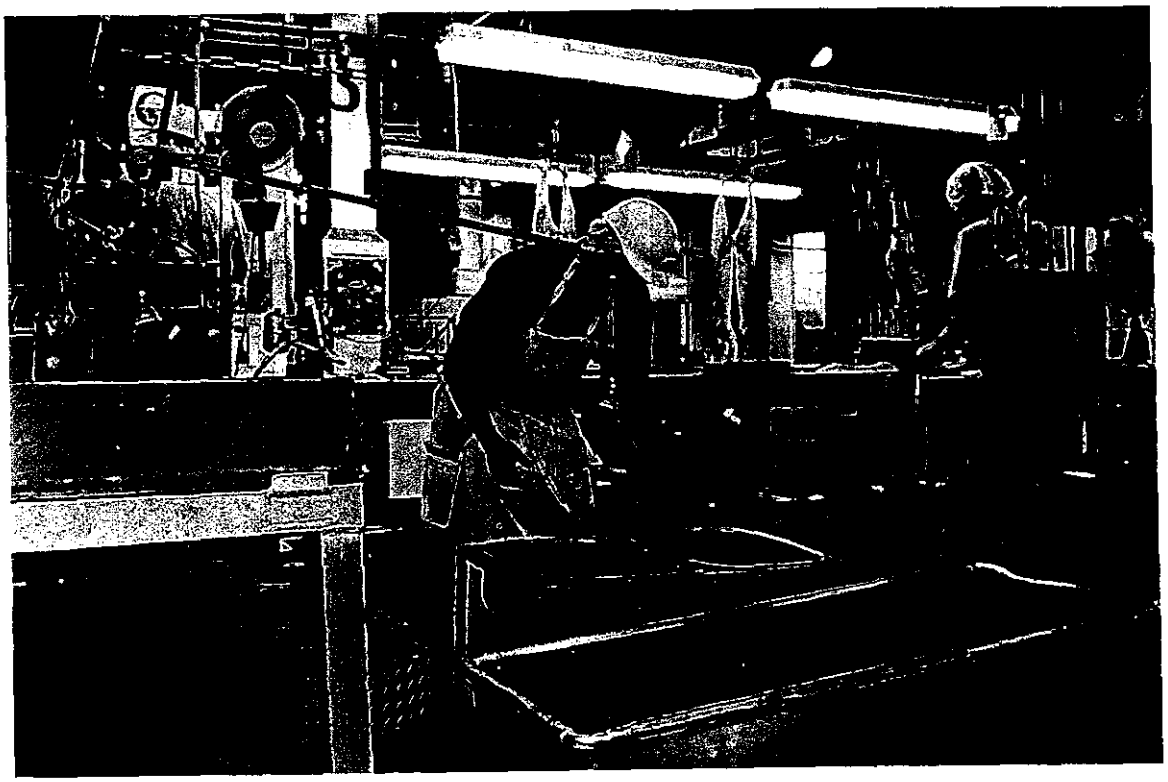


Photo 2 Awkward posture, shower and sink too low.

Photo 3 Reaching into stainless steel bin to get container of product

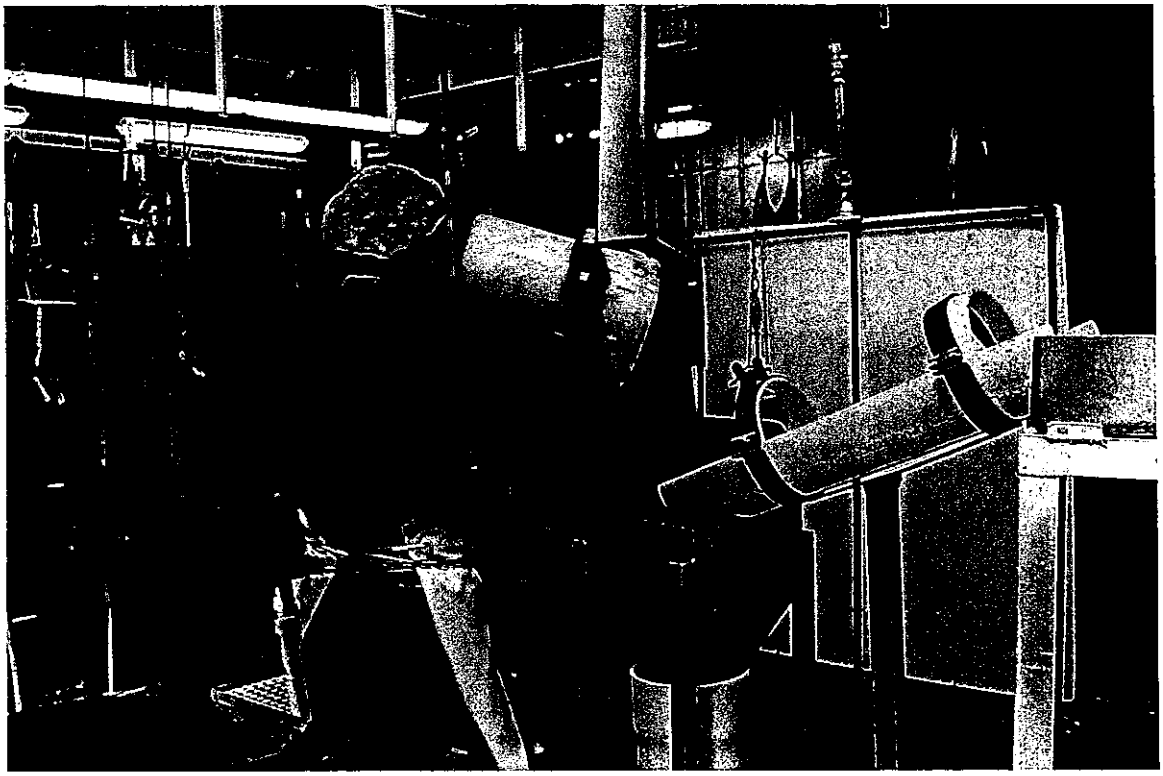


Photo 4 Emptying product into chute. Solution required another small chute under the one shown that fed into main chute.

Complex Issues

The final type of problem were those that were deemed to be insurmountable. Here the mindset was that the job had always been a problem and that there was no solution because of the physical constraints of the workplace. An example of this is the pig lumping job. Here two workers lift either sides or full carcases (Photo s 5, 6 and 7)from the slaughter rail to the rail that runs to the chillers, changing gambrels in the process. The job was high risk in terms of strain/sprain injuries as well as other risks such as the cut injuries (Photos 8 and 9) from the pig's backbone on split carcases. This job required outside assistance and the solution was developed by Mike Waring from the Wulguru Group. His drawings of the solution are attached in Appendix 5. This solution has not been implemented because the enterprise may not be processing pigs in the future. It is, however, a good example of the necessity on some occasions, of calling on outside expertise. Even thought the focus team was able to do the ergonomic assessment and define the problem there was a barrier in that they had accepted the inevitably of the problem for so long that they were unable to develop an engineering solution.

Photo 5 Grasping pig while co-worker unhooks gambrels.

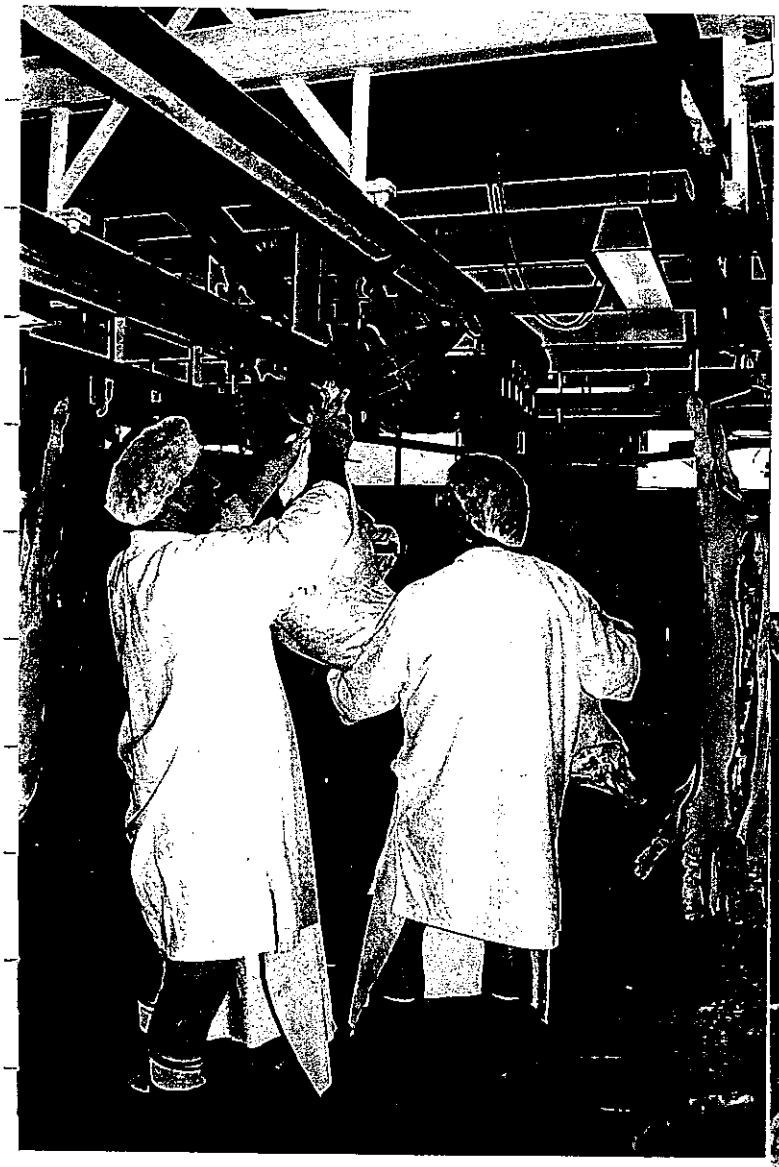


Photo 6 Unhooking Gambrels

Photo 7 Changing gambrels

Photo 8 Grasping split pig while co-worker unhooks gambrel

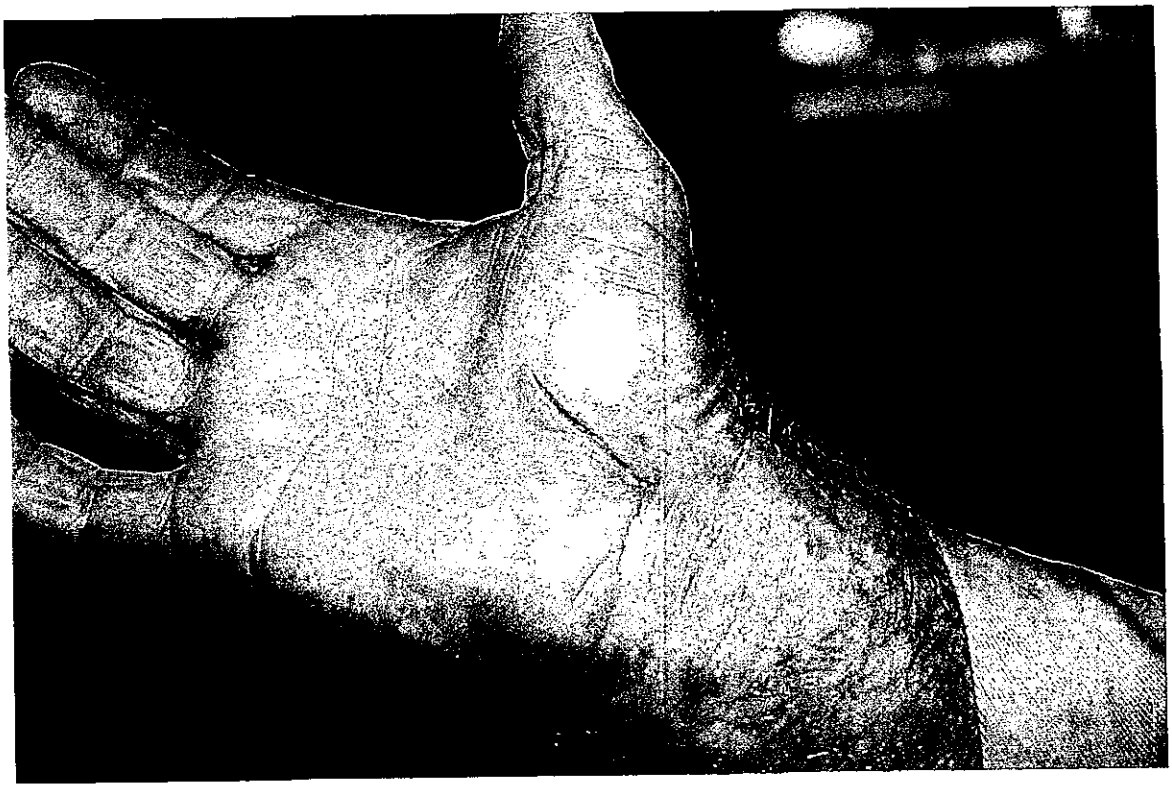


Photo 9 Cut injury from split pig carcase. Worker is supporting full weight of pig carcase.

The Focus Group

The workshops were positively received although there were issues that needed to be resolved. Those included sharing with the focus group the outcomes of the 2 days training in Melbourne. In retrospect, for this group, the Melbourne training proved to be more of a barrier than a help. Reasons for this observation are that those who didn't go indicated that they felt left out. More senior people seemed to think that they should have been included. Also to some extent it created expectations for the attendees that were never realised. These expectations included their level of involvement in all facets of the project. For example, the QA Officer either had to be replaced for a complete shift or he could not be released at all because of the critical nature of the job. This circumstance meant that although he was involved in the Melbourne training and the structured workshops his involvement decreased significantly in the actual ergonomic phase of the project.

The composition of these teams is a crucial factor in the success of these projects. All enterprises would benefit from written guidelines to help them to establish project teams for projects of all types.

The Continuous Improvement Teams

There were constraints relating to production and profitability that prevented the implementation of the Continuous Improvement Teams as had been intended. Therefore, the level of involvement created at Q Meat Brisbane was never replicated at Toowoomba. The Tasklist was used as a communication device and even though it listed people's names and their concerns it was not sufficient to involve them in the project. The lines of communication were kept open by one of the focus group who was a union delegate. However this only partly solved the communication problem. For future projects of this type a communication process should be developed that includes contingencies in the event of the proposed model proving inadequate for whatever reason.

Overall Observation

In all, the project was successful despite a re-structure and change in management, as well as outside factors that effected the abattoirs long term future ie the State Government's decision to withdraw from the provision of a service kill. The level of success of the project in these adverse circumstances demonstrates the robustness of the model in linking training to actual workplace problems so that the enterprise can work towards independent solutions.

The single most important outcome of the project was the creation a simple framework to define and discuss ergonomic problems, ie the 20° rule. This rule also serves as a measure of the proposed solution.

The Recommendations

The recommendations arising from the Project are:

- **That a case study be written to share the experience of this group with the industry.**
  The case study would increase the knowledge base of enterprises across the meat industry with regard to ergonomics and would increase the level of awareness of the ease of assessment using the 20°rule and the possibilities of a range of solutions. It would also increase awareness of the dangers of creating additional problems by implementing ill considered solutions.

- **That a ergonomic assessment/problem solving guide be written to accompany the case study to facilitate other enterprises to review ergonomic issues**
  The guide would be based on the training notes developed for the course and would be amended to incorporate the developments highlighted in this project eg the 20° rule and the dislike of structured forms.

  A communication process should be incorporated that includes contingencies in the event of the proposed model proving inadequate for whatever reason.

  The composition of the enterprise team has been identified as a crucial factor in the success of these projects. All enterprises would benefit form written guidelines to help them to establish project teams for projects of all types and such a process should be included in the guidelines..
  There is a wealth of material, including photos and video that can be drawn on for both the guide and the case study

Consequences of the Recommendations

The anticipated consequence of implementing these recommendations is the increased awareness of the industry with regard to ergonomic issues and their resolution, leading to a reduction in injuries and savings in related compensation costs.

Detailed Project Plan				
Stages	**Activity**	**Methodology**	**Date**	**Mile stone**
1 Develop agreed process for ergonomic assessment project	Agree team members Establish team groundrules Develop communication strategies performance indicators evaluation and monitoring strategy negotiation skills	♦ in consultation with Q Meat ♦discussion ♦lecture/discussion	August 97	
2 Conduct a series of structured workshops and facilitation of ergonomic assessment.	**Session 1** basic principles of ergonomic assessment overview of the problem solving process identification of problem tasks **Work based activity identify problem tasks and photo and video them**	♦lecture/discussion ♦brainstorming ♦flowcharting ♦Why 5 times ♦interview	Commencing September 97	**Mile stone 1**
	Session 2 presentation of problem tasks data collection (will arrange to have accident and workcover data available) prioratise problems **Work based activity: select problem to work on analyse selected problem**	♦butchers paper, video, photo ♦bar chart, pareto diagram ♦voting ♦criteria rating ♦cause and effect diagram (modified for ergonomic use)		

	Session 3 presentation of analysis generate potential solutions risk analysis of potential solutions **Work based activity: generate and do risk analysis for problem of your choice**	♦butchers paper, video, photo ♦brainstorming ♦flowcharting ♦Why 5 times ♦interview		
	Session 4 presentation of potential solution and risk analysis develop implementation strategy **Work based activity: develop implementation strategy for problem of your choice**	♦orce field analysis ♦balance sheet ♦brainstorming ♦flowcharting ♦Why 5 times	Finishing December 98	**Mile stone 2**
	Session 5 present overview of implementation evaluation of implementation **Work based activity: evaluate implementation of solution to problem of your choice.**	♦post audit ♦story board		
3 Continued facilitation of ergonomic assessment	complete the identification, analysis and implementation of solution for a number of tasks	♦utilise above skills and strategies	May 98	**Mile stone 3**
4 Final Report and documentation to MRC	Write up group experience Combine with "how to" of ergonomic assessment	draft document review of content by group redraft as necessary	July 98	**Mile stone 4**

PIG KILL

Job Description	Employee	Date	Project	Safety	Other	Problem	Action Taken	Status	Review Date
Sticker	Rick Higgins	22.7.97	✓			Pushing pigs up hill	Progressing; rail to go downhill	Not finished	15/6/98
Scald	Garry Mac	22.7.97	✓			Step to get on stand, have to climb over motor	Step installed	Finished	15/6/98
Shackler	Paul Qualy	22.7.97		✓		Drop chain hangs down	Drop chain changed to appropriate level	Finished	14/11/97
Shaving Table	Steve Rodgers	22.7.97		✓		Step to get up to table	Step has been put in	Finished	14/11/97
Shaving Sides	Brian Bosnen	22.7.97		✓		Bigger pipe for waste to escape	None as yet		15/6/98
Shaving Sides	Brian Bosnen	22.7.97	✓			Guard around stand someone has fallen	Stand has been extended	Finished	15/6/98
Hanging Pigs	Tim Wallace	22.7.97	✓			Gear stand should be a bit higher so don't have to bend to get gambols	Stand has been extended	Finished	15/6/98
Shaving Table	Greg Higgins	22.7.97		✓		Hitting back on corner of sink	Propose putting in shower rose to wash apron and hands and get rid of sink; leave steriliser.		15/6/98
Lunging Out	Des Jensen	22.7.97	✓			Bending over to lung out	Big job needs further investigation		15/6/98
Inspectors	Ian Allison	22.7.97	✓			Bending to check pits out	Big job needs further investigation		15/6/98
Pig Heads	Gary Ross	22.7.97	✓			Bending over to cut pigs' heads off	Big job needs further investigation		15/6/98
Pig Lumping	Barry Green	22.7.97	✓			Too heavy - bad on back	Big job needs further investigation		15/6/98

Pig Kill

Pig Lumping	Bob Douglas	22.7.97	✓			Pigs cut in half - hooks to make it easy	There were hooks. Where are they? Garry A to check with Ian Holmes. Truckies not returning them?		15/6/98
Pig Drop	Darryl Luskin	22.7.97	✓			Pushing pigs up hill	Big job? Want to make rail level or on a slight drop. Engineer says 1.5 days to do job. Put in yellow non-slip on floor.		15/6/98
Catching pigs	Dennis Burg	22.7.97	✓			Hook getting caught up - not sliding	Solution proposed is to grease rail		15/6/98
Steriliser over steps	Robbie Fett	22.7.97		✓		Hot water spilling over steps	Been fixed	Finished	14/11/97
	R Higgins	21/11				Get plastic pig hooks because the metal ones won't slide.	Plastic hooks made	Finished	15/6/98
	R Ross	21/11				Gas pipes; pigs get stuck	Try putting mesh around		15/6/98
	B Rosnow	21/11				No hot water in pipes of steriliser		Finished	15/6/98
	Blonk	21/11				Shift steriliser to other wall so there is less walking when lunging pigs outs plus the QA factor			15/6/98
	Barry	21/11				Extra lumper on pigs	Major project review		15/6/98
	A Ross	21/11				Mesh stand behind scald positioned the wrong way and is too slippery	Bought cross bars to run along it	Finshed	15/6/98

CATTLE KILL

Job Description	Employee	Date	Project	Safety	Other	Problem	Action Taken	Status	Review Date
Stock Yard	Paul Qualy	21.7.97				Gates are sagging - won't swing	Gates sag because people climb over them. Continual repair job. Needs further investigation	Continuous	15/6/98
Roller Return	Merv Inge	21.7.97		✓		S-hooks reduced - 1 taken off	Fixed	Finished	14/11/97
Wheel Barrow	Gary Petersen	21.7.97		✓		Wheels wobble and are loose	No lungs barrow? Will do lungs in a barrow	Finished	15/6/98
Roller Guard	Greg Higgins	21.7.97		✓		Needs to be longer on first bed	Guard extended	Finished	15/6/98
Roller Guard	Allan Ross	21.7.97		✓		Bending over to side cattle	Big job Looking at rail dressing		2/12/97
Siding of Cattle	Allan Ross	21.7.97		✓		Guard has been bent outwards	Big job Looking at rail dressing Guard repaired	Finished	15/6/98
Gutting Out	Garry Mac	21.7.97		✓		Saw in between the two beds - better way	Get more info (Garry) cord drops and gets twisted up in the water		15/6/98
Pushing Cattle Around	Ashley Upton	21.7.97			✓	Rollers are hard to push	Oil in hook washer to be changed Old type of oil ordered	Finished	15/6/98
Steriliser near Hidepuller	Des Jensen	21.7.97			✓	Needs a new tap put on		Finished	2/12/97
Beef Saw	Ron Crabb	21.7.97		✓		Flat steps would be better - won't slip	Yellow anti-slip has been put in this area. Will now try cutting out top step	Finished	15/6/98
Hind Quarter Trim	Darryl Glena	21.7.97	✓			Some sort of guard around elevator	No longer required	Finished	15/6/98

Cattle Kill

Top Trim	Graham Jaco	21.7.97	✓			Bending over to sterilise	Why not use other steriliser? It doesn't work. Have to come down off the stand to wash hands. Check old steriliser it is still hooked up.		2/12/97
Top Trim	Graham Jaco	21.7.97	✓			Put a guard around the back of trimmer	Check height? Need more info		2/12/97
Hind Quarter Trim	Graham Jaco	21.7.97		✓		Harness to stop you falling off	Check if it is the sides or the back that is the problem? Bob /Stringer		2/12/97
Wash	Ashley Upton	21.7.97	✓			Screen around wash. Water sprays out towards bed and people and product get wet	Check more info. Stringer		2/12/97
Branding Beef	Barry Green	21.7.97		✓		Make the step more secure	Done Step has been bolted in	Finished	14/11
Beef Stick	N	21.7.97	✓			Step up to reach gate latch	Done	Finished	14/11
Beefsaw	M Klease	2.12.97		✓		Posture when sawing beef	Pneumatic stand installed	Finished	15/6/98

SHEEP KILL

Job Description	Employee	Date	Project	Safety	Other	Problem	Action Taken	Status	Review Date
Stock Yards	Jack Harris	16.7.97	✓			Gates need repairing - won't swing	Gates sag because people climb over them. Continual repair job. Needs further investigation	Continuous	15/6/98
Stock Yards	Jack Harris	16.7.97	✓			Holes in yard fences. Rail on holding yard	Continual repair job. Needs further investigation	Continuous	15/6/98
Stunner	Tim Wallace	16.7.97	✓ ✓			Bending over all the time to stun sheep	More info needed. Compare sheep with pigs		15/6/98
Shackler	Paul Qualy	16.7.97	✓			Some other way to shackle sheep - easier	Possible solution is to chain them instead. Check with Paul, he has been to Ipswich.		15/6/98
Boy Putting Sheep on chain	Wade Hohn	16.7.97		✓		Blood drain cover for boy to stand on - dangerous	Done	Finished	14/1197
Rail Return	Rick Higgins	16.7.97	✓			Hooks keep falling off rail	Hooks are being put on the wrong way round. Check work practice. Make sure work practice is the real problem	Finished	2/12/97
Legging Stand	Graham Jaco	16.7.97		✓		Some sort of cover over steriliser pipes	Done	Finished	14/11/97
Spear Cut Rail	Greg Higgins	16.7.97		✓		Steriliser overflowing - wool steriliser pipes need a cover	Done Paul developed a weir system to allow water to flow out Retarain cleaner to hose out.	Finished	14/11/97
Pelting Rail	Tom Friend	16.7.97	✓		?	Hide builds up behind pelter - slip	Need more info		15/6/98

Sheep Kill

Pelting Rail	Harry Laurrysens	16.7.97	✓			Extra steriliser - save a lot of walking	Not done. Concerned people may back into the steriliser. Will look at this some more Gary A		2/12/97
First Wash	Darryl Luskin	16.7.97	✓			Need a step to make it easier to get up to wash	Done	Finished	14/11/97
Inspector	Dennis Smith	16.7.97		✓		Pipe going into steriliser needs cover - burns	Done	Finished	14/11/97
Inspector	Robbie Camfferman	16.7.97		✓		Pipe Sticking up out of concrete - trip	Done	Finished	14/11/97
Gut Table	Alan Wilson	16.7.97	✓			Needs new bar on offal stand - keeps falling off	Done	Finished	14/11/97
Retain Rail	Robbie Fett	16.7.97	✓			Put stand up over half the step	Done	Finished	14/11/97
Rollers	Darryl Delaney	16.7.97			?	Roller skids - needs greasing to help them roll	Rollers are skidding on the flat spot. Take them off line to get fixed	Finished	2/12/97
Retain Rail	Robbie Fett	16.7.97	✓			Skylight painted to keep out heat - summer	Problem may occur with keeping out light. Maybe have summer glass and winter glass?? Check out other solutions. Painted it.	Finished	15/6/98
Offal	Robbie Belfield	16.7.97	✓			Carting offal down stair to chiller	Put in a chute	Finished	2/12/97
Runner Room	Jason Dennis	16.7.97			✓	Water leaking down from chutes		Finished	2/12/97
Chiller	Ian Hames	20.7.97			?	Trolleys need cleaning - makes them roll better	Trolleys under a cleaning program	Finished	15/6/98
Retain Rail	Robbie Fett	20.7.97	✓			Pigs won't come off retain rail needs grinding	Done	Finished	14/11/97
Retain Rail	Gary Ross	20.7.97	✓			Make retain rail join up at other end - no lifting	Need more info Paul;		2/12/97
Floor Boy	Jason	20.7.97	✓			Lifting of trays to empty them	Need more info		2/12/97

Sheep Kill

Sheep (lift) floor	Barry Green	20.7.97	✓			Step put in to make it easier to get on stand	Could put in ramps Stringer check it out.		
	Paul Qualy	21/11		✓		Hooks falling off	Guard rail placed along	Finished	15/6/98
Pig stick	R Higgins	21/11		✓		Drain cover	Cover put over drain	Finished	15/6/98
Legging	S Glenn	21/11		✓		Fan needed	Fan purchased and installed	Finished	15/6/98
Legging	Marty	21/11			✓	Stop button at his end	Button installed	Finished	15/6/98
	Breasting	21/11		✓		Pipe into wall getting clogged and overflowing	Weirs placed in sterilisers	Finished	15/6/98
Brisket	D Berg	21/11		✓		More steriliser	Area changed	Finished	15/6/98
Pelting	M Bannerman	21/11			✓	Skewers needed along chain and skewers holders	Inverted dressing?		15/6/98
Pelting	D Dukes	21/11			✓	Sink needs repair	Consider weld arm on?		
Gutting out	A Upton	21/11		✓		Guard needed around table motor when gutting out. Steel gets caught in motor	Guard put in place	Finished	15/6/98
Lunging out	A Wilson	21/11		✓		Water bubbling out of steriliser Another steriliser needed	Try reducing pressure	Finished	15/6/98
Retain	R Fett	21/11			✓	Trial another steriliser	Go and have a look		
Scales	John	21/11				Scales and rail need aligning so sheep don't catch	Re-aligned	Done	15/6/98
Scales	John	21/11				Cold air coming out of chillers			15/6/98
	D Gilliam	21/11				Hot hose needed on sheep side so don't have to drag one form beef.	Hot hose installed	Finished	15/6/98
	D Smith	21/11		✓		Chain speed on 5.6. this is unsafe	Chain speed locked down	Finished	15/6/98

Tank House

Job Description	Employee	Date	Project	Safety	Other	Problem	Action Taken	Status	Review Date
Blood room		20/3/98			✓	Repair leg to coagulator	Blood system under review		15/6/98
Blood room		20/3/98			✓	Replace roof over blood house	Blood system under review		15/6/98
Charge floor	Tony	20/3/98		✓		Bricks coming away from chute	Bricks removed from wall (barrow damage)	Finished	15/6/98
Charge floor	Tony	20/3/98			✓	Leaking through concrete building			15/6/98
Tank house		20/3/98	✓			Some way of lifting backfatters out of bin			15/6/98
Charge floor		20/3/98		✓		Wire over cookers	Wire retied to roof member	Finished	15/6/98
Blood room		20/3/98	✓			Guard rail for elevator (better system)			15/6/98
Tank house		20/3/98		✓		Fans for over cooker dump 50 or a port hole			15/6/98
Tank house		20/3/98	✓			Ladder from bottom of oil tank to paunch room very slippery requires some sort of guard rail			15/6/98
Tank house		20/3/98			✓	Barrows need fixing	Continual work high corrosion area	Continuous	15/6/98
Tank house		20/3/98			✓	Pipe over alley way leaking	Steam pipe		15/6/98
Charge floor		20/3/98	✓			Gut chute- try to cut out carrying guts to hasher shute			15/6/98
Charge floor		20/3/98	✓			Beef fat chute to join other chute to stop splashing			15/6/98
Charge floor		20/3/98			✓	Condemn screw leaking blood onto ground	Hole in screw repaired	Finished	15/6/98

Charge floor		20/3/98			✓	Pipe leaking over scales	Bung replaced	Finished	15/6/98
Tank house		20/3/98	✓			Bigger barrow required to push saveall material	Barrow of correct size placed into operation	Finished	15/6/98
Tank house		20/3/98	✓			Look at runner screw with back bung material leaking own concrete - slippery-			15/6/98
Tank house		20/3/98	✓			Some way of lifting 50 kg bags of meal			15/6/98

Ergonomic Task Analysis

Task under review **Date**

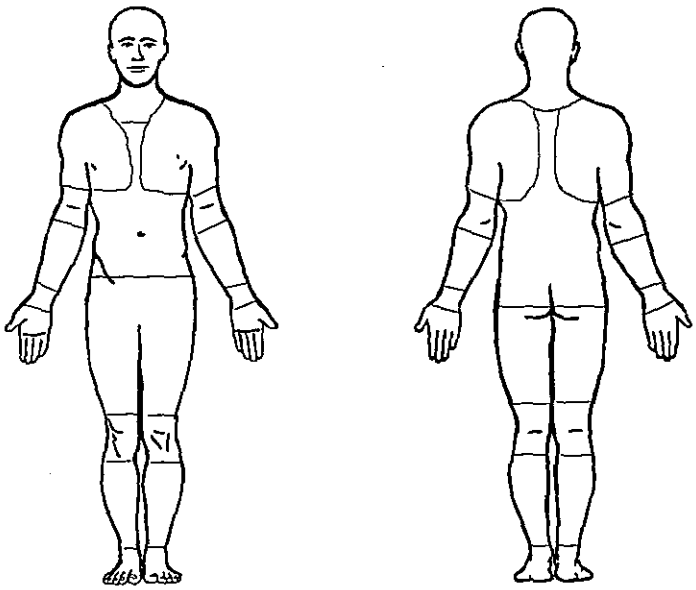
Review Team

Records checked Worker's Comp☐ First Aid Injuries ☐ Other☐

Summary of Relevant Information

Employee Consultation

Do you have any pain or discomfort while you are doing this job? Yes ☐ No☐



Shade the area where pain occurs. Would you describe the pain as

1	☐aching	5	☐numbness	9	☐stiffness
2	☐burning	6	☐sharp pain	10	☐tingling
3	☐cramping	7	☐dull pain	11	☐weakness
4	☐loss of colour	8	☐swelling	12	☐other

Does the pain stop when you stop working? Yes☐ No☐

If No how long does the pain or discomfort last?

Comment

Have you had any treatment?

Medical ☐ Physiotherapy☐ Chiropractic ☐ Other☐

Did the treatment help?

How much time have you lost in the last year with this problem?

How often have you had to go light duties because of this problem/

Record the Job Steps Use video and photos of the task to identify hazards.

Job Step	Hazard

Check environmental factors

Identify solutions

Signed by Review Team

Date Date Date

Date Date Date

Evaluation of Solution

Meat Research Corporation
Project RPDA.211B

Reduction in sprain/strain Injuries using ergonomic task analysis and process improvement teams.

Major Focus Group

Rob Jensen
Steve Rodgers
Paul Lynch
Bob Murray
Gary McLoughlin
Barry Keleher
Alan Ross
Geoff Beck
Garry Austin

Communication Issues

How do we let people know what is going on?

One of the most important aspects of any project or change in a workplace is to make sure people have up-to-date and accurate information about what is going on. There has been a briefing at the Project launch on 9/7/97 but how do we let people at Q Meat Toowoomba know what is happening with this MRC project?

- Steve and Paul to talk to people (requires 1 job on chain to be back-filled)
- Feedback from minutes of meetings
- Focus group members to be listed on notice board
- Encourage people to talk to focus group members

Performance Indicators

How do we know if we are doing a good job?

For any workplace project or change we need to have ways of working out whether what we have done is any good or not. It is best to work out ways to measure performance at the start of the project. How are we going to do this?

- Lack of abuse
- People put forward ideas/issues
- Morale improves
- Decrease in issues
- Decrease in workcover (workerscomp) claims
- Gather stories about changes so we don't forget what has been achieved
- Company bottom line improves
- Do a before and after survey (time1 /time2) getting people to rate project outcomes, management, maintenance, union, quality and safety. Would have to be done a volunteer, anonymous basis.

Do we have any doubts?

Do we have any doubts about ability to deliver?

- People will say it is all talk
- Where is the money coming from?
- Is Q Meat serious?
- People have concerns about the future of Q Meat

Barriers and constraints

These are things we need to overcome to get the project going and keep it going.

BARRIERS

- We need to get engineering on side
- We need to kick some goals to get people's confidence (can do some small stuff first.)
- We need to get people involved

CONSTRAINTS

- the project will run out of puff
- $ available
- people won't want to be involved
- project overlaps with other systems

Melbourne meeting / training

- some people had previous experience
- encouraging networking (try to keep in contact with others on the course)
- most saw that they would have to convince to management

Team Rules

- Everyone has a say
- Don't put others down
- Don't put ideas down
- Don't agree just to go along with the group
- Say if you don't understand idea / point
- Have to check with individual workers opinions
- Group agrees with priorities. Bob says if we have the $

  Priorities -Safety
  -$
  -Resources

Problem

Step up to the stand on retaining wall on the sheep
Was too high
so had to walk to the other end of stand and use step there
not on because

- it takes too much time
- easier to take the big step

Too high because

- it was an effort
- it hurt
- depends on how tall you are
- jarred getting down
- danger of slipping

Solution

Put in a step like the other one

What problems did this solution cause

Reaching chain without falling off end of block (which is now 18inches shorter)
Reaching to lift and trim
Mechanical device not perceived to be easier
Roller jams at changeover point when doing pigs, (they are heavier and pull the changeover rail down)
High pressure area CCP (critical control point)

Engineering solutions

Possible solutions
(Need to check with Robbie Felt and others)

- fill part of step back in
- shift step to middle
  may be too narrow in middle
- Put in steel platform/ step which can be removed when necessary
- Can bar be smoothed out
  Pigs pull change over rail down

Talked to bloke on block

Step is too small and too narrow
Number of people involved 3 – 4

Identify problem

Stunning Sheep

- twisting upper body especially shoulder
- support weight on left leg – hips aren't level
- right leg extended to reach control
- button restrainer
- upper body weight supported by left arm while pressing stunner control

Measurements

- how far away from foot control is right foot
- how high is rail
- what angle is he leaning forward

Talk to people who are doing the job

Sheep
Yards gates don't swing
Sticking hook rail
    Front on shots
    From the back
    Side on
        Legging
        Pelting
        Sticking

How do the men see the project

Most positive (evidence: input to survey)
Some doubters

- May have some long term issues/ projects that will a couple of years
- Attitude
- Don't take time frames / $ into account

Things for Focus Group to do

Look at

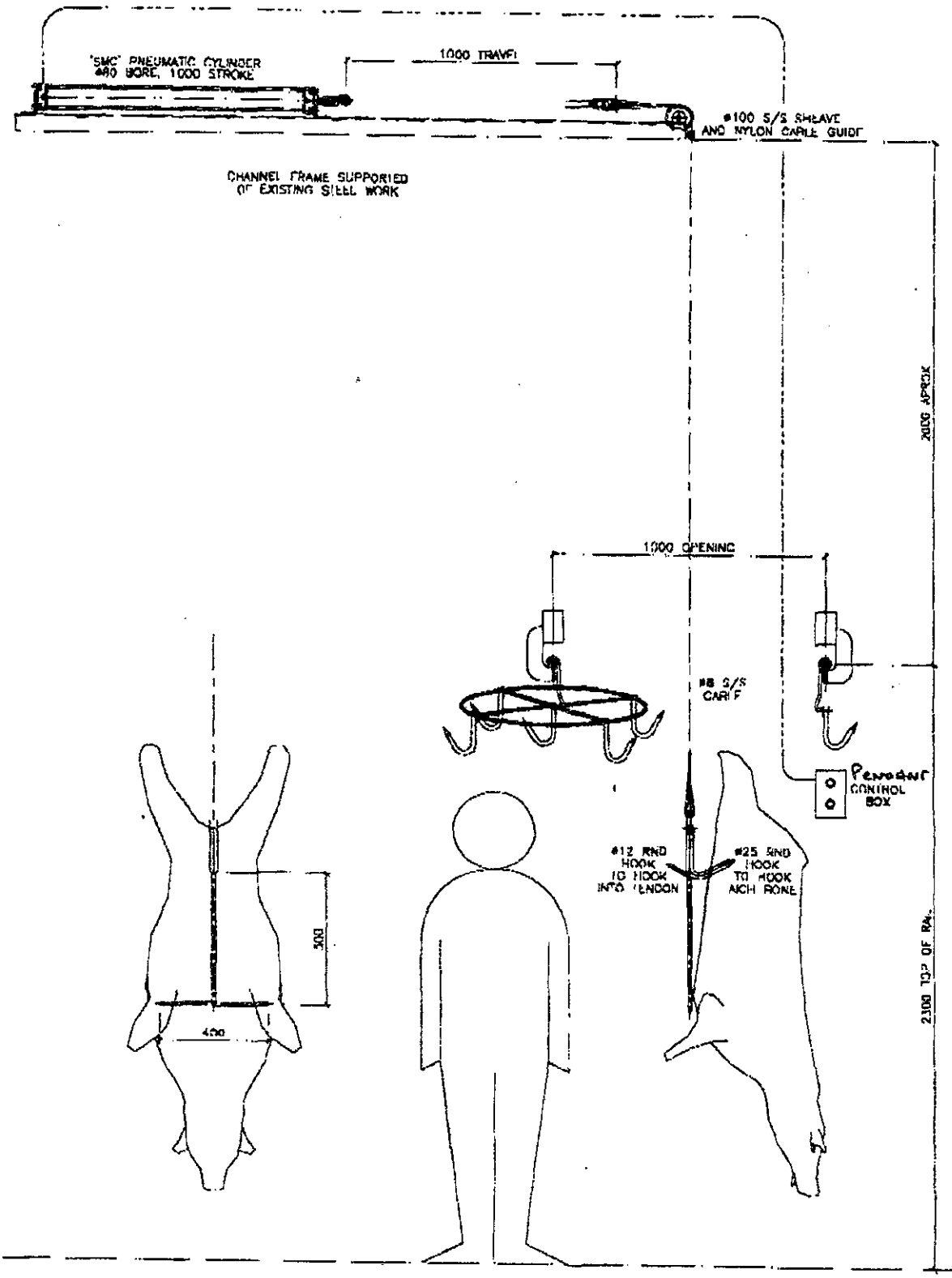
- Traineeships
- Training
- Job rotation

Steve, Paul, Gary, and Rob

Collect the big list of problems

We will sort these into Project and non- project
We will prioritise in terms of

- Safety
- Money
- Manual handling
- Availability of manual labour



JOB NUMBER REQ 784
CLIENT Q-MEAT
PIG LIFTER
PROPOSAL DRAWING
ARRANGEMENT
DRG NUMBER REV 784-01P
A1

WULGURU GROUP OF COMPANIES