Pilbara Iron Ore Agreements
Processing Obligations and Outcomes

By

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This thesis is presented for the degree of Master of Philosophy by research
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I declare that this thesis is my own account of my research and contains as its main contents work that has not previously been submitted for a degree at tertiary education institution

Peter John Murphy
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Abstract

The Western Australian government entered into agreements for the development of Pilbara iron ore. These saw access provided to iron ore in return for processing. The obligations were specified in terms of what, how much and when processing would take place. Both sides expected that they would be met, if economic. Ore beneficiation, pellets, metallised agglomerates and steel processing were expected, depending on the agreement.

The processing obligations from the 1963 to 1974 agreements have all been met; some to time, some early and some late. They were met as set or as agreed alternatives. Metallised agglomerates and steelmaking were always found to be uneconomic. Alternatives were accepted in their place.

The implementation process was considered using an Ambiguity-Conflict model. The process was an example of political implementation. This was where the agreement parties entered into negotiations when an obligation became due and could not be met. That process allowed for the agreed re-setting of the obligation (type and/or timing). If that re-set obligation was not met, the process would be repeated until an agreed outcome was achieved that would be accepted by the state as discharging the obligation.

The effectiveness of the obligations outcomes was judged against criteria set at the time of their initial negotiation. If the effectiveness test was whether the obligations were met to type and time, then the outcomes would fail. But it is argued that the political implementation process meant this was an unreasonably high test. As the outcomes over time reflected negotiated outcomes, the obligations could be seen to have been effective.

The meeting of the obligations was tested against a policy success framework. The outcomes had less than complete success, but were not failures. However, the inability of the agreements to deliver steelmaking meant that political support for their use has been lost. It is unlikely that they will be used again.
Acknowledgements

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Chapter 1

Setting the scene

Introduction
Western Australia has commonly used state agreements as the basis for major industrial developments in the state. Examples from the 1950s and 60s were agreements for the establishment of an oil refinery, a steel rolling mill, a steel industry, a pigment factory, and an alumina refinery. These agreements were for industrial developments in the developed south west of the state. They saw the company establishing the industrial plant on land supplied by the state and the state providing supporting services (usually power and water) and infrastructure (roads, rail and employee housing). All had immediate plans to develop and were supported by the state through the provision of land and services (through state entities).

It was therefore unsurprising that the state would negotiate agreements for the development of the iron ore that was found in the Pilbara after the lifting of the iron ore export embargo in late 1960. However the agreements had to be different from those negotiated previously as the Pilbara was a remote and undeveloped area of the state. This meant that the state had no existing services in the area that could be expanded to accommodate project demands. It also did not have the financial capacity to develop new services. The solution was for the companies to provide most of the infrastructure with the state having a say in the location and quality of the infrastructure by approving (under the agreement) proposed project infrastructure. How this worked in practice was reviewed by Brown. A further difference was that processing obligations were included in the agreements. It is these obligations and the outcomes achieved that are the subject of this thesis.

1 Agreement scheduled to the Oil Refinery (Kwinana) Agreement Act, No 1 of 1952.
2 Agreement scheduled to the Broken Hill Proprietary Steel Industry Agreement, No 46 of 1952.
3 Agreement scheduled to the Broken Hill Proprietary Company’s Integrated Steel Works Agreement, No 67 of 1960.
4 Agreement scheduled to the Laporte Industrial Factory Agreement Act, No 32 of 1961.
5 Agreement scheduled to the Alumina Refinery Agreement Act, No 3 of 1961.
6 See Chapter 2 for details.
8 Court, WAPD, 26 September 1963, pp. 1418 and 1677.
9 Ibid, pp. 1418, 1419.
The Pilbara agreements of most interest were ones that were entered into from 1963 to 1974 for iron ores of a quality that allowed for direct shipment without processing beyond the crushing and screening required to make them suitable for export. Agreements were also entered into where the ores required further processing in order to be exported. However they are not directly relevant as the processing was integral to the project and not an obligation required in the future after a period of direct shipping ore exports. They will only be considered to the extent that they add to the consideration of the direct shipping ores agreements. A Liberal/Country (later National) Party coalition was in power for most of this period (1959 to 1971) with Mr (later Sir) Charles Court as the Minister for Industrial Development and the main development spokesman. A Labor government was in power from 1971 to 1974 and continued the agreement approach established by the coalition government. Agreements entered from 1974 to 2006 and variations to agreements are also considered as they show both the evolution of the obligations in the light of the experience with existing obligations and outcomes from re-negotiations of obligations.

The next section considers the development policies that provide a context for the development of the Pilbara and the following section considers the use of ratified state agreements in pursuit of those policies.

Resource Development Policies and Processing

In 1980 Layman reviewed resource development policies in WA over the period from the 1930s to the 1960s. She characterised the shift that took place when the Brand coalition government came to power in 1959 as being to a focus on large scale resource development projects funded, owned and operated by the private sector with the state providing planning support. This compared to small mining ventures and state service provision that had characterized policy under the preceding, mostly Labor, governments. Layman noted that Court had said in 1962 that, while the government aim was to achieve the maximum amount of local processing, this would not be easy to achieve and that exports of unprocessed ore would have to be allowed to prepare the way for processing. However the government was not prepared to bind the companies to move beyond the minerals export phase into processing.
as any move to direct or coerce a company would be against the basic thrust of the government policy towards private rather than state development.

Court said elsewhere that the government wanted to see WA become an exporter of crude steel, metallised agglomerates and pellets, as well as various types of iron ores and, in this role, would act as a warehouse for the world’s steelmakers. However he said that; ‘No government would expect uneconomic or unrealistic operations to be undertaken…’ This view fitted with a philosophy of encouraging not requiring processing.

The government resources policy that guided the approach taken to mineral development and processing from the 1960s was also reviewed by the then coalition development Minister, Peter Jones, in 1980. It was a very ‘conventional’ approach that saw the mineral developments as having both forward and backward linkages to the economy that were of benefit as well as the value from the mineral exports themselves. The state wanted to achieve maximum recovery of the resources; maximum economic benefit from local sourcing in the construction and operation phases of mineral and processing developments; and maximum processing. The role of the state was to provide maximum encouragement to private company development and marketing with minimal state involvement or interference. The vehicle for this was a state agreement. This would set out the commitments on both sides and represented strong security for the agreement project that could only be changed by mutual agreement.

Jones saw processing as being of value for its direct benefits, mainly increased employment and investment, and for the indirect (multiplier) benefits from local supply of goods and services to the construction and operational phases of processing. There were also balance of payments benefits to the nation. However this was qualified by recognizing that the processing had to be practicable and economic; the availability and development of the

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14 Court, WAPD, 27 October 1963, p. 1911.
16 Also see comments by Court, WAPD, 26 September 1963, pp. 1418 and 1419 and WAPD, 15 October 1963, pp. 1673 and 1674.
resource of itself did not mean that processing would happen. Also local processing for the export market had to be seen by the importing country as being to its advantage if it was to occur. In these comments Jones was anticipating the very similar views put by Tilton that, while a mineral endowment was important, there were a myriad of other factors that could influence how and when developments took place. This particularly applied where efforts were made to move downstream and the link between endowment and output becomes weaker as other factors become important, particularly in the target market. Eventually these other factors can outweigh the endowment advantages. Tilton concluded that policies that encouraged international competitiveness were more likely to be successful than policies that used public subsidies or protection.

In the important and influential (in its time) 1965 Vernon Committee Report support was given to the importance of processing minerals rather than exporting them in the form of crude ores. The Committee recommended that, where a project depended on the granting of mineral leases, the grant should be subject to conditions relating to processing. The approach taken by the WA government in the Pilbara agreements was consistent with this recommendation.

Another review of the processing policy approach by the state is found in a 1996 paper by Colin Barnett as the then Minister for Resources Development. Barnett took the position that the state should seek to maximize the amount of secondary processing of the Pilbara iron ores, while adding the proviso that the processing had to be commercially viable.

To further illustrate the need to recognize the economics of processing when considering what processing could be expected from a mineral endowment, there is a relevant table in a 1976 paper prepared by the United Nations Secretariat. That showed that, while the known resources of major minerals were in developing countries, the processing was in the market

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18 Ibid, pp. 103 to 112.
20 Ibid, p. 249.
countries. For iron ore the trend was very clear, with 34% of production leading to only 5% of smelting and 10% of refining in developing countries. The paper concluded that this showed that forward integration from the mine was seen by the importing country as being more costly and financially risky than taking ore to the market and processing it there; it also meant that the importing country obtained jobs for its people through this processing. The best a developing country could do in this situation was to produce the earliest readily exportable forms of processed materials. The recommendation was that countries that were resource rich but did not have a domestic market should not try to attract higher levels of processing. Instead ore should be exported and the revenues used to build the economy so that it could be the market for processed products.

This was clearly not an option for Western Australia, given that it would always have a small population and consequently small domestic demand. A way around this would need to be found if processing was to be achieved in the face of the difficulties identified above. Jones concluded that this would require some form of arrangement with the market countries. This was actually not a new idea. Court had concluded by 1970 that the development of a partnership with northern hemisphere steelmakers could see WA move up the value adding chain between WA and those steelmakers, rather than just exporting iron ore to be processed by these steelmakers.

The policy position taken by the state reflected the great interest in the benefits that were seen to flow from value adding to mineral resources, but was tempered by the requirement for this to be economic. This view was explored by Emerson where he concluded that value adding alone was no basis for establishing a processing industry. He also questioned whether even adding the proviso that the industry had to be economic was a sufficient basis for pursing value adding. Emerson concluded that a cost benefit approach should be taken as this would evaluate the project in economy wide terms and whether resources were being correctly allocated to the project compared to other uses in the economy.

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24 Ibid, p.117.
27 Court, WAPD, 27 October 1964, p. 1911.
The backward linkages from mining and processing are a further aspect of the benefits from developments in the Pilbara. These were considered by F Harman.\textsuperscript{29} He concluded that there had been success in fostering small specialized firms, but that a wider expansion of manufacturing had not taken place, even in support of the mining sector. F Harman discussed the development philosophy of the coalition government. He found it to be consistent with the theories of growth that assumed that economies went through stages in development. These stages could be impacted and accelerated by specific state interventions that aimed to achieve a diversified economy with regional development. He argued that the problem for this growth model was that the WA economy could become effectively locked into an economy based on the extraction and export of raw materials in a way that inhibited the desired diversification. In support of this argument F Harman quoted from a Bureau of Industry Economics study that concluded that the impact of mining on the development of manufacturing capacity in the economy was limited and did not reach much beyond industries required to support the construction phase of projects.

E Harman discussed issues relating to the staged theory of development and its implementation in a state economy.\textsuperscript{30} This staging can be within a sector, where mining leads to resource processing of increasing complexity and can lead to development in other sectors, both related directly to the sector and stimulated by the development of the sector. As E Harman put it, the vision of the 1960s was that the initial Pilbara development based on iron ore mining would result in both iron ore processing and the development of a major industrial complex in the Pilbara based on a wider range of industries. The Pilbara Study\textsuperscript{31} was given by E Harman as an example of how people saw such a progressive development, particularly with the availability of cheap energy represented by NW Shelf gas. E Harman went on to discuss the reasons why this vision was not likely to succeed, calling on the dependency thesis that a mining economy is not going to be able to break out of its dependence on its customers who want to hold the benefits of greater diversity within their

\textsuperscript{29} Harman, F. J., “Mining and the Manufacturing Sector in Western Australia”, \textit{State, Capital and Resources in the north and west of Australia}, ed. Harman, E. J., and Head, B.W., Perth, University of Western Australia Press, 1982, pp. 327-357.


own economies. This was an argument against the view that the customers could be open to arguments for allowing processing by the miner. In this environment E Harman suggested that a better approach might be to maximize the tax take from mining (and possibly place that in a development fund similar to the Heritage Fund set up by the Alberta government), rather than leave excess rents with the mining project in the belief that this would encourage downstream investment.

**Ratified Agreements as development tools**

A contemporary review (in terms of the Pilbara agreements of most interest to this thesis) that allows the placing of the WA agreements in wider context was contained in a 1973 paper by Lipton.32 While he was mainly referring to the use of mining agreements in developing countries, his comments are relevant to the issues facing Western Australia in gaining maximum benefits from the development of the Pilbara iron ore wealth. Lipton commented that; ‘Governments were now seeking to retain as many of the benefits from the development of minerals within their own borders as they can.’

He went on to list provisions in agreements directed at this result. Many were relevant to national governments and not generally within the scope of state functions in a federal system (a restriction that is not usually acknowledged and means that tax concessions or subsidies that a national government can provide were not available to WA; other than through foregoing royalty income, which was available to WA); but they did include the following that are features of WA agreements:

- preference for local goods and services;
- preference for nationals in employment and promotion;
- minimum plant size and processing commitments; and
- establishment of fair market value for purposes of royalties and taxation.

In terms of options other than a country to company agreement, Lipton discussed:

- Joint venture arrangements for the project that involved the state as a participant with the aim of increasing revenue beyond royalties and taxes and obtaining a share of the profits.

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- Service Contract arrangements where the government retained full control of the mineral and pays a company to extract the minerals on its behalf (often used by oil rich states).

- Contract of Work arrangements where the developer does not receive a title to the minerals until they leave the country. The government sets the rentals, royalties and taxes that will apply, but there is no government equity in the project.

Australia has no history of government involvement in projects as a condition of projects proceeding and the Brand/Court coalition and Tonkin Labor governments of the 1960s and 70s were committed to private sector development of the economy. This meant that joint venture or service contracts arrangements would not have even been considered. The contract of work approach would mean that the company would have no title that it could use as security for borrowings or guarantee that it could supply contracts. It would also fly in the face of the mining title system where the grant of a mining title meant the state had given up ownership of the mineral in exchange for royalty payments when the mineral was sold. The approach could have been adopted in the case of the Pilbara iron ore where the state allocated the land after calling for applications, which meant the company had no prior title. However the state could set the rentals and royalties through the agreement provisions and company taxes were not a concern of the state. This meant there was no need to, or advantage in, holding back on ceding ownership of the resource. In fact there was a major disadvantage as such a step would have prevented companies from borrowing to fund their investment requirements. It is not surprising that none of the options was considered as an alternative to a state agreement.

In terms of processing as an element of the agreements, Lipton identified the twin benefits from processing of value adding and the multiplier effect while noting these were only achievable if the processing itself was economically viable.\(^3\) This was not a matter just of cost of production; it was influenced by size and location of markets, existing capacity elsewhere and the political risks of having invested in facilities in-country. The focus in WA (and Australia) has mostly been on the costs of production side of the equation in the belief that, if costs can be lowered through government action, then processing can and should happen. Lipton argued that this might not be enough to overcome other factors. Where

\(^3\) Ibid.
processing was economically unviable at the time an agreement was negotiated, Lipton suggested that provisions in the agreement could provide for periodic review of the viability and extent of processing. This is a feature of the Pilbara agreements through the use of deadlines for proposals for processing, economic tests of viability and options to extend, vary or replace obligations that were found to be unviable (as explored in later chapters of this thesis).

Crommelin concluded in 1996, based on his unpublished research into 82 Australian agreements, that; ‘Australian experience with State Agreements amply confirms the flexibility afforded by this instrument for resource management.’\(^3^4\) While he did not specifically consider processing obligations, the agreements he considered did have processing clauses of various types. Crommelin noted that the principal advantages of agreements were:

\[\text{...that the parties can create a unique legal framework for each resource project... deficiencies in the ordinary law... may be overcome and special requirements of the parties in relation to the project may be met. Agreements also provide a means of coordination of the numerous statutory controls... applicable... and allow the establishment of an integrated regime for approval, management and monitoring of all stages of the project under the supervision of a specified Minister.}\]

A 2001 review of state agreements by Fitzgerald did consider processing clauses and gave examples from Queensland, South Australia, Northern Territory and Western Australia.\(^3^5\) The examples included agreements where processing had been achieved and those where it had not. He found that, despite the desires of the states to achieve processing as a means to secure the greatest regional benefit from the mining industry, most minerals were exported in an unprocessed form. Fitzgerald commented that the amount and type of processing varied across minerals, was mainly at the first level of processing beyond the mineral as found in the ground and diminished as the level of processing increased with very low levels of export of the metal form of the mineral. The low degree and amount of processing in WA was noted and the comment made that companies were able to avoid or defer their obligations; ‘…on


\(^{3^5}\) Fitzgerald, Anne M., “The substantive provisions of mining agreements”, Mining Agreements; Negotiated Frameworks in the Australian Minerals Sector, Chapter 9, Prospect, 2002.
the grounds that it was not economically feasible or were allowed to trade off their obligations in return for undertaking alternative projects.’

However, Fitzgerald did not consider what happened over time, what processing did occur, what the state may have obtained for giving deferrals or in accepting alternative projects and whether any obligations were simply dropped by government without receiving any ‘compensation’. These are some of the questions this thesis will consider. The use of departmental files that include internal meeting notes and advice to Ministers, cabinet minutes and decisions and correspondence and meetings between the state and the various agreement companies provides a more detailed view than simply considering public outcomes from obligations.

In 2006 Hillman noted the extensive use made by WA of state agreements and commented that this was exceptional, both in an Australian and an international context.36 He concluded that agreements were a legitimate tool for governments to use, but had flaws that meant that governments should prefer to improve legislative frameworks so that exceptions were not required to accommodate major projects. This would mean that agreements would become mechanisms of the last resort rather than be routinely applied to major projects. Hillman noted that agreements were commonly used to place obligations on projects in three areas: further processing; local content and third party access to project infrastructure.

Hillman saw a fundamental flaw in agreements in that there was no clear standard to identify the costs of these obligations and the benefits obtained from them. A major reason for this was that they were part of ad hoc negotiations and were designed to achieve intangible policy benefits in a situation where there were no means to determine whether the benefits obtained outweighed the costs. In an efficient market place, economic theory would say that anything in an agreement that fettered either side in pursuing their own objectives was not a sensible outcome. The issue is made more difficult as changes to an agreement could only be achieved by negotiations, which sends the agreement back to ad hoc outcomes and continues the problem. Hillman concluded that it was possible to judge only whether an obligation achieves the desired result, not whether this is a good or bad outcome in cost benefit terms across the whole agreement.

Conclusion
The world of the 1960s and 1970s when the agreements were negotiated was one where control, intervention and involvement by government were generally the worldwide norm. Hence companies would have welcomed the chance to negotiate agreement provisions that allowed for immediate development of the resource in return for processing in the future based on economic considerations at the time. This would have been much preferred to seeing governments take a directive approach that would require processing by the companies in return for access to resource almost irrespective of the economics of processing.

The coalition government that negotiated most of the agreements was very much against direct government involvement in the private sector. But it saw industry as something that operated within a regulated environment where government, rather than the private sector, provided infrastructure such as water, electricity, communications and rail transport services. In this context it would have expected that the processing obligations would be seen by the companies as obligations to be met and not as something that was optional or likely to be dropped by the state. It is fair to say that the companies never questioned the right of the state to seek to have the obligations met and accepted that a revised or new outcome had to be negotiated with the state when obligations fell due and were not economic.

This relationship between the state and the companies is well described by the principal-agent problem that is widely used to describe and interpret the issues that arise when one party (the principal) engages another (the agent) to perform tasks or deliver services on behalf of the principal. The problem is how does the principal ensure performance by the agent, particularly where there is information asymmetry between the parties? The agreements were the vehicle chosen by the state to ensure performance by companies that were given rights under agreements. They also included mechanisms such as proposals clauses with deadlines that meant the companies had to come forward with their side of the bargain or risk losing their rights. The state also was able to influence how the companies performed through the

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38 Court, C.W. “Iron Ore Policy in Australia”.
approval of the proposals. Further once proposals were approved a company had obligations to continue to perform or again risk losing its rights through losing the agreement. The Pilbara iron ore agreements went further than the initial performance requirement, which was to develop a particular project, and required that processing of iron ore occurred in the future in return for immediate exports of iron ore. This was a particularly difficult thing when considered in the principal agent problem context, given the time disparity and the information asymmetry where the companies held the market and project economics information. The state addressed this by requiring information from the companies to persuade the state to agree to deferring obligations or entering into negotiations to vary obligations as will be seen in Chapters 3 through 7 of this thesis.

This thesis considers the expectations and behaviours of both state and companies over time and as circumstances have changed (particularly as a consequence of the oil shocks of the 1970s). The way that processing provisions have changed over time, both in new agreements and as variations to provisions in existing agreements, are examined. Then specific attention is paid to the processing obligations and how they were “met” over time. An overall view is taken of the processing that has been achieved and how that fits with the processing that was expected, both in terms of timing and achieved outcome. Finally the questions of the whether the processing obligations were effective, how they could have been made more effective and what use may be made of them in the future are considered and conclusions drawn. Consideration is also given to the way the principal-agent problem has worked out over time between the state and the agreement companies and what that means for the future of agreements and processing.

Particular use is made in Chapter 9, Part 1 of a 1995 paper by Matland\textsuperscript{40} that considers policy implementation literature and develops an alternative model using ambiguity-conflict dimensions to categorise the implementation of a policy. This model provides a framework for understanding how implementation will progress and be influenced. From a consideration of the history of the meeting of obligations (particularly in Chapters 6 and 7 and summarised in Chapter 8) and the paper, the conclusion is reached in Chapter 9 that the agreements were an example of ‘political implementation’ where compliance (meeting the

\textsuperscript{40} Matland, R. E., Synthesizing the Implementation Literature: The Ambiguity-Conflict Model of Policy Implementation, \textit{Journal of Public Administration Research and Theory: J-Part}, Vol 5, No 2, pp 145 to174
obligation) by the company (agent) is not automatically given and cannot be forced by the state (principal). Hence negotiations would be expected where compliance was not forthcoming and the outcome would be that new arrangements entered into by the state and the company. The chapters (3, 4 and 5) of this thesis that set out the history over time of the negotiations between state and companies for agreements that included processing obligations show a consistent pattern of negotiated outcomes. This is also shown in the chapters (6 and 7) that specifically look at the meeting of particular obligations over time.

In Chapter 9, Part 2 consideration is given to the evaluation of the degree of success achieved by the state in having agreement companies meet their obligations. Extensive use is made of the framework provided by McConnell where he considered the extent of success across a spectrum from complete success (not often achieved) to complete failure (often observed). He then broke success into what he called the ‘dimensions’ of process (largely the setting up of the policy), programme (outcomes over time) and politics (support for the policy over time) and nominated criteria for judging success in each of these dimensions. This was a qualitative framework only and little guidance was provided by McConnell on how to bring the success achieved in process, programme and politics terms together into a single conclusion. The approach taken in this thesis was to use an un-weighted point scoring system to make the McConnell framework more amenable to the complex situation where there were multiple agreements, obligations, companies and governments involved over an extended time period (just over 50 years from the first processing agreement, which was

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In an ideal outcome the policy would fall in the same place in the spectrum under each criterion for each dimension and an unambiguous point on the spectrum would be determined, at least for that dimension. The policy would then have been clearly assessed in terms of his spectrum, which ran from complete, durable, conflicted and precarious success, then failure (see Appendix B for definitions of each). In the examples given by McConnell, a policy does not fall into just one point in the spectrum for a particular criterion, let alone for the dimension itself. What he then does is to make a judgement call in an overall summation in terms of where to place the policy dimension within his spectrum.

McConnell does not give an example of a policy tested against all three dimensions or how he would make a judgement call to provide a single spectrum point for a policy that takes into account all three dimensions at once. He recognises the difficulty by commenting that: ‘…the process, programme and political dimensions of policy often sit at different points on the success-failure spectrum, because of inherent conflicts between the different types of success that are sought.’ But, as to how this is to be reconciled into a single view of the success of a policy he only comments that: ‘…when we examine a particular policy case, we could do much worse than think about an explanation revolving around policy-makers striving to achieve various combinations of process, programme and political success, making trade-offs between them while juggling feasibilities and risk’. Given this uncertain advice, the approach taken in the thesis was designed to reach less ambiguous conclusions from the use of the McConnell model.
entered into in 1963\textsuperscript{43}). This provided a quantitative basis that could be used to come to firm conclusions in relation to the degree of success achieved, taking into account the complexities in a way that could not be done using a qualitative approach, and was therefore preferred by the author of this thesis.

\textsuperscript{43} Agreement scheduled to the Iron Ore (Hamersley Range) 1963 Agreement Act, No 24 of 1963.
Chapter 2

Discovering the Pilbara

Introduction

The export of iron from Australia had been banned since 1938 because Australia’s iron ore resources were believed to be small. Today that situation would have seen encouragement given for exploration for iron ore. But, with a ban in place, there was no incentive to look and hence no improvement in the resources base. This meant that explorers in the Pilbara had no incentive to look at iron ore that they might come across or to disclose what they had found. Pressure from the WA government for exports of iron ore from deposits that were known to exist within the state was a major factor in the changes made to the embargo in late 1960 (usually described as lifting the embargo but in reality more in the nature of a relaxation as seen below). These changes lead directly to the identification in late 1961 of large iron ore resources in the Pilbara (the short timeframe suggesting that there was possibly more information around about the potential of the Pilbara than was appreciated at the time by the government), although this was more of an accidental and fortuitous outcome.

Changes in the commonwealth iron ore export ban

The commonwealth Minister for National Development, Senator Spooner, announced in December 1960 that the export of iron ore from Australia would be allowed but ‘on a carefully controlled and limited basis’.44

Exports continued to be banned from the known high grade deposits in the Middleback Ranges (South Australia), Yampi Sound (Western Australia) and the Koolyanobbing area (Western Australia). Exports were to be allowed from other known deposits, but only at the rate of 1mt/a from each and only 50% of reserves could be exported. New discoveries and additions to resources in existing deposits would be subject to the same rules, although larger export production rates might be agreed.⁴⁵

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The commonwealth had written to the states prior to the announcement inviting each to provide information for an assessment of Australia’s iron ore resources. The WA government provided a comprehensive review that estimated that there were 270mt of high grade and 223mt of low grade ores known within the state. There was no mention of high grade ores being present in the Pilbara, although the presence of ores of 20-30%Fe was noted. The existence of high grade iron ore in the Pilbara would have been a strong argument for a complete lifting of the embargo. This shows that decisions at the time of, and immediately following, the ‘lifting’ of the embargo were made without any knowledge within government (state and commonwealth) of the vast reserves of iron ore in the Pilbara. This was confirmed by the then Minister for Mines, Arthur Griffith, in 1973 when he said that:

The first Agreement I can recall...in relation to iron ore was the Scott River Agreement [1961]....We did not know what lay around the corner....We did not know that huge discoveries would be made in the Pilbara.

State expectations from iron ore exports allowed by lifting of the embargo

The state premier, David Brand, in May 1959, called for the state and commonwealth to cooperate in a review of the iron ore resources of Australia, with the idea of allowing the export of iron ore. State profits [royalties] from iron ore exports would, he said, be used for projects such as harbour development and water conservation, but not for state trading concerns. This reflected the political philosophy of the government which was in favour of private enterprise and opposed to state enterprise, but saw a role for the state in providing infrastructure. He also commented that:

...the profits from overseas sales should be used to help private enterprise establish industry in WA. I would be particularly interested in any proposition which might lead to private enterprise establishing a steel industry in WA.

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46 Letter from Director, Department of National Development, to Under Secretary for Mines, Department of Mines, 23 June 1959, Mines Department File 3734/70 vol 6, folio 80.
48 Griffith, Western Australia Parliamentary Debates (WAPD), 24 October 1973, p. 4273.
50 Brand quoted in “Cabinet moves on iron ore exports”, The West Australian, 27 August 1959.
Brand argued that the commonwealth should agree to the export of iron ore from isolated and small deposits that were not an economic prospect for a local steel mill.\textsuperscript{53} He proposed that exports be allowed from the Mt Goldsworthy deposit, which he saw as being in this category.\textsuperscript{54} In contrast he wanted to hold the larger Koolyanobbing deposits ‘until they can be exchanged for a steel industry which is fundamental to WA’s industrial future’.\textsuperscript{55}

These comments make it clear that the state was interested in iron ore exports only from deposits that were unsuitable as a source of iron ore for steelmaking. The royalty revenue would be applied to state government infrastructure developments. Where they were thought to be suitable they were to be held for steelmaking purposes, with the Koolyanobbing deposits being a case in point.

**Response by the state government to the lifting of the embargo**

The state government announced its response to the commonwealth action in late March 1961.\textsuperscript{56} This put the state’s iron ore deposits into three categories:

1. known major deposits of high grade iron ore (which included Tallering Peak and Mt Goldsworthy) to be held by the state for iron or supply for steelmaking or for benefits to be won from exports;
2. medium to low grade iron ore deposits known to the government; and
3. deposits yet to be found.

Tenders were to be called for the development of Tallering Peak and Mt Goldsworthy for iron ore exports. In the case of the latter two categories, applications for temporary reserves (TRs) under the Mining Act of up to two years duration to explore would be called for categories 2 and 3. If ore was discovered titles would be granted on conditions, including royalties, to be negotiated with the Minister for Mines.

In July 1961 Griffith announced that 87 TRs had been allocated and commented that the ‘State Government would encourage companies with plans for processing iron ore’ in the

\textsuperscript{54} Ibid.
\textsuperscript{55} Brand quoted in “State Will Retain Koolyanobbing Ore”, *The West Australian*, 20 August 1960.
state. Around half of these were for areas in the Pilbara, which suggests that while the state was unaware of the iron ore potential of the area, others were. *The West Australian*, in an editorial commenting on the allocation of the TRs, was positive about the benefits from the coming exploration of the allocated areas, with two provisos: that the benefits would be greater if the iron ore was processed in WA before export (with the significant qualifier that this should be as far as economically possible) and that resources needed to be conserved for the future needs of WA and the commonwealth. By November information on large finds of iron ore in the Pilbara was available to Griffith who commented that ‘While export…is desirable, the greatest benefit to the state lies in…the export of …finished products’.

A second round of applications resulted in 200 applications with the allocation of 100 TRs being announced on 31 March 1962. Griffith commented at the time that, if economic quantities of ore were discovered, mining rights would be negotiated ‘involving royalties and the degree of local processing planned for the ore’.

Court wrote to Griffith in March 1962 commenting that;

*One of our main problems is to ensure that we do not lose control of the end use of the ore within Australia. It has been accepted that a proportion will be exported for processing abroad. However, the balance of the ore mined still has to be dealt with… It is imperative that the [government] should have the right to lay down conditions in respect to treatment and processing which will ensure a reasonable proportion of the mineral being treated and processed in Western Australia.*

It is evident that there had already been a shift in government thinking away from seeing iron mining primarily as a source of revenue towards a view that processing was an important outcome to be obtained from iron ore developments.

This was seen in the debate on the Mount Goldsworthy 1962 Agreement, the first Pilbara iron ore agreement, where Minister Bovell said that:

...the government considers it is most desirable to encourage the processing of ore in Western Australia; and further considers that, in these circumstances, the royalty is only a secondary consideration.  

The discovery of the Pilbara iron ore deposits

Four months after the initial allocations Spooner announced that four to five times Australia’s previously known iron ore reserves had been discovered in the Pilbara. That was the basis for claims that 2.5 billion tons of ore had been found in the Pilbara. Premier Brand commented that:

...they would undoubtedly give WA the opportunity of bargaining for a second integrated iron and steel industry, or, at least, local processing and upgrading of iron ore.  

The Minister for Mines, Griffith, reinforced this by saying:

Although the Commonwealth had eased its iron ore export embargo, companies which made new discoveries would still have to negotiate with the state government, which would look favourably on propositions for the local processing of ore.  

And that:

...while the export of the right grade of ore is desirable, the greatest benefit to the state lies in the treatment of the iron ore in WA for the export overseas of finished products.  

While the Pilbara’s potential was just appearing on the horizon, the focus of the state at the time was on the outcome of the tenders for the development of the Tallering Peak and Mount Goldsworthy deposits for iron ore export (without processing obligations) and the work by BHP to develop the Koolyanobbing deposits to supply iron ore to a blast furnace at Kwinana. That ‘package’ of developments met the state’s desires for income in the form of royalties

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63 Bovell, WAPD, 18 August 1962, p. 652.
67 Ibid.
from the export of iron ore and a steel industry based on the Koolyanobbing deposits. This focus was shown in the comment by Griffith to the Japanese Committee for Overseas Iron and Steel Making Raw Materials of Japan:  

...it is the desire of the Western Australian government that Tallering Peak and Mt. Goldsworthy be given the first priority by both sides.  

This view changed as the size of the Pilbara deposits become more evident. Brand was reported as saying that the state:

...could look forward to the economic benefit of direct sales of iron ore abroad. Later it could expect the establishment of upgrading plants [and] in the long term ...a second steel industry... 

The market situation for Pilbara Iron Ore

By the end of 1962 there was no doubt that the iron ore deposits in the Pilbara could support large direct shipping ore exports. However it was not certain that the deposits could be developed for export in the short or even the medium term. The Japanese steel mills that were expected to be the major customers were planning to reduce output and postpone expansion proposals in response to a recession in the Japanese steel market.
Discussions were held in 1963 in Tokyo between Griffith and the Japanese steel mills. Premier Brand said that the talks were ‘progressing satisfactorily’ and that, while the government wanted to see exports commence;

... in the interests of WA industrial development, the government would like to see processing plants set up, to export iron ore pellets and perhaps steel at a later stage.

When Griffith returned, the market situation was headlined in *The West Australian* as ‘Griffiths Finds No Ready Sale in Japan for WA Ore’. The article stated that there was not a shortage of iron ore and that WA needed to show it could compete with the rest of the world to supply Japan. Even at this stage the emphasis was on obtaining markets for ore from Tallering Peak, with exports to commence in 1966. The Pilbara was a longer term proposition with the Japanese expected to visit the Pilbara later in 1963 to inspect the deposits. A 1964 commonwealth report supported the view that the Japanese market was hard to penetrate as there was a buyer’s market for iron ore. It predicted only 5 mt/a of exports to Japan from Australia by 1970, with the best prospects for iron ore sales being beyond 1970.

In June 1963 the commonwealth announced changes to the December 1960 iron ore export policy. The reason given was the change in expectations around the iron ore market since the policy was announced. In 1960 it was not expected that markets would be a problem, but the market had become extremely competitive and producers needed to be efficient and low cost. This meant producers needed to be able to mine the whole of a deposit and not be restricted to exporting a maximum of one million tons per year. For large deposits, as known to exist in the Pilbara, the proportion allowed to be exported and the rate would be decided on

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75 Ibid.
a case by case basis. These changes set the scene for contracts to be negotiated for exports from the Pilbara.

Conclusions
The state was most interested in the lifting of the embargo so that it could gain royalty revenue from the export of iron ore that it could use for infrastructure spending. The government particularly wanted to see the Mount Goldsworthy and Tallering Peak deposits developed for export and the lifting of the embargo allowed that to happen. It also provided an opportunity for exploration to be carried out in WA as there was now an expectation that newly discovered iron ore deposits could be developed for export. The state quickly called for expressions of interest from companies interested in exploring for iron ore and did receive applications for areas in the Pilbara. Soon after the allocations of areas for exploration there were reports of early success in the Pilbara, with large limonite deposits being discovered and announced by government in late 1961. However, the Japanese market demand was impacted by a recession in Japan and the prospects for large scale exports to Japan before 1970 looked limited. This meant that the immediate outlook was not good for the establishment of iron ore exports based on the newly discovered deposits in the Pilbara. It was in this uncertain market environment that the initial Pilbara iron ore agreements were negotiated. While there was optimism that markets would be established, contracts that could be the basis for projects proceeding had not been signed and agreements were seen as means to encourage projects and the signing of contracts.

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81 Small deposits (less than 5 million tons) were to be allowed to be entirely exported and at any rate. No change was made to conditions governing the reserved deposits, which in WA meant Yampi Sound and Koolyanobbing. The new conditions were issued by Commonwealth of Australia, Department of National Development, “Information for Applicants for Approval to Export Iron Ore”, Canberra A.C.T., 1 August 1963. Mines Dep’t file 3744/70 v16, folios 45-47.

Chapter 3

Processing obligations in the pre-oil shock world (1962-1974)

Part 1

Setting the scene-the early agreements (1963-1967)

Introduction

This part considers the agreements entered into by the state in the period 1963 to 1967 and the processing provisions in those agreements.

The projects and mines developed from the Hamersley Range 1963\textsuperscript{83}, Mount Newman 1964\textsuperscript{84}, Cleveland Cliffs 1964\textsuperscript{85} and Mount Goldsworthy 1964\textsuperscript{86} Agreements largely constituted the Pilbara iron ore industry from the first exports in the mid-1960s until the early 1990s. The major mines developed under each agreement were at Mount Tom Price and Paraburdoo (Hamersley Range), Mt Whaleback (Mount Newman), Robe River (Cleveland Cliffs) and Mount Goldsworthy (Mount Goldsworthy). A map of the Pilbara showing the location of these mines and associated towns, railways and ports is at Figure 3.1.\textsuperscript{87}

The mines established at Mount Tom Price, Paraburdoo, Mount Newman and Mount Goldsworthy were based on direct shipping ore quality haematitic (brockman) iron ores that could be sold without any processing beyond crushing and screening.\textsuperscript{88} The lump ore was (and still is) particularly desirable as it could be fed directly into blast furnaces. The fine ore had to be pelletised or sintered before being fed into a blast furnace and was only directly saleable (at that time) in conjunction with lump ores.

\textsuperscript{83} Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 24 of 1963.
\textsuperscript{84} Agreement scheduled to Iron Ore (Mount Newman) Agreement Act, No 75 of 1964.
\textsuperscript{85} Agreement scheduled to Iron Ore (Cleveland-Cliffs) Agreement Act, No 91 of 1964.
\textsuperscript{86} Agreement scheduled to Iron Ore (Mount Goldsworthy) Agreement Act, No 97 of 1964.
\textsuperscript{87} Map is taken from Court, C. W., Minister for Industrial Development and the North-West, “Pilbara Prospects in the 1970’s” presented at a Symposium on Northern Development, The Institution of Engineers (Perth Division) held at the University of Western Australia, 24 May 1968.
While pelletising of haematitic ores was a relatively new technology, pellet demand was growing, and it was expected by the government that the fine ore could be processed and sold as pellets.

The Robe River mines were based on limonitic pisolite ores that were unsuitable for direct shipping. These ores were lower in iron and higher in moisture than the haematitic ores. While they could not be sold, or upgraded for sale, as direct shipping ores, they could be processed into iron ore pellets that could be sold. Court noted during the parliamentary debate on the Cleveland Cliffs 1964 Agreement that pelletising was a major industry and that it was paradoxical that the lower grade limonite deposits could see the establishment of processing in the Pilbara ahead of the direct shipping ore deposits. He also noted that the deposits were of a different nature from the haematitic ore deposits and projects based on these ores would be processing rather than direct shipping projects.

Other lower grade haematitic ores that would require treatment (beneficiation) before being able to be sold were known to exist in the region and were the basis of the Nimingarra 1967 Agreement, which was also a processing rather than a direct shipping project.

The other significant iron ore of direct shipping quality found in the Pilbara is known as marra mamba. This ore has lower iron and higher water contents than haematitic ores, while being higher in iron and lower in water content than the limonitic pisolites. The ore is also softer and has much lower lump yields than haematitic brockman ores. The early agreements only incidentally included marra mamba deposits because of their proximity to

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89 As evidenced by the statements by the President of the Cleveland Cliffs Iron Ore Company in the 1963 Annual Report of that company that ‘…1963 saw the continuation of the pellet revolution in the steel industry…The increased demand for pellets…has more than justified the large capital expenditures…on pelletising plants. Since 1956 when we pioneered the first commercial haematite iron ore pellet plant we have shipped every ton of pellets that we have produced.’
92 Western Australian Steel Study Taskforce, *Steel Study Report*, June 1992, pp. 3-1 to 3-6, Pilbara Study Group, *The Pilbara Study*, Appendix Vol. 2, Section 1, pp. 6-8.
93 Agreement scheduled to Iron Ore (Cleveland-Cliffs) Act, No 91 of 1964, Preamble (b), (c) and (d).
95 Court, *WAPD*, 27 October 1964, p. 1911.
high quality haematite Brockman ores, not for their (then) potential for development\textsuperscript{98} and they were not produced from the Pilbara until 1989; production before then being dominated by direct shipping quality haematitic ores (about 80\% of volume).\textsuperscript{99}

There were two other agreements entered into (BHP (Deepdale) 1964\textsuperscript{100} and Hanwright 1967\textsuperscript{101}) that did not result in projects being established in this period. The BHP agreement ores were similar to those in the Cleveland Cliffs agreement with similar expectations.\textsuperscript{102} The Hanwright agreement areas had limited direct shipping ore resources ores along with larger amounts of lower grade ores and only suitable for sale after being pelletised.\textsuperscript{103}

This thesis is concerned with agreement projects that had a period of shipping of untreated ores before obligations were due. To that extent the projects that had ores that could only be exported after they were processed (pellets being the expected form) are not part of this thesis. The agreements for these projects will be considered only where that would be relevant.\textsuperscript{104}

In the remainder of this section the direct shipping ore agreements and their processing provisions are outlined in turn and are compared and contrasted.\textsuperscript{105} This is done in order to draw out details of the application of the policy of going beyond mining to iron ore processing and the use by the government of control of access to Pilbara iron ore to further this policy. An important aspect of the ratified agreements was the general consistency of their provisions, which was a conscious effort by government.\textsuperscript{106} As a result the agreements share many identical or near identical clauses, including processing clauses.

\textsuperscript{98} Western Australian Steel Study Taskforce, \textit{Steel Study Report}, June 1992, pp. 3-1 to 3-6.
\textsuperscript{100} Agreement scheduled to Iron Ore (The Broken Hill Proprietary Company Limited) Agreement Act, No 103 of 1964.
\textsuperscript{101} Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 19 of 1967.
\textsuperscript{102} Court, \textit{WAPD}, 24 November 1964, pp. 2937, 2938.
\textsuperscript{103} Court, \textit{WAPD}, 5 September 1967, p. 727.
Before discussing the agreement provisions it is relevant to consider the market situation for the Pilbara iron ores as perceived at the time, as that influenced the way the agreement provisions were developed and negotiated with the companies.

**The uncertain iron ore market of the early 1960s and the policy response by government**

It is easy to think that the agreement projects were well formed and certain to proceed from their beginnings in the early 1960s and that the government was therefore in a position to drive a hard bargain, particularly in relation to processing. There were, however, considerable market uncertainties facing iron ore projects, particularly ones in such a remote and undeveloped location as the Pilbara.

During the debate on the Hamersley Range 1963 Agreement, Court noted the comment by member for the Pilbara that:

…we seem to come up against the difficulty of finding a market for the iron ore…there is no shortage of iron ore in the world, either as to quality or quantity…I do not think our iron ore will be quite as easy to sell as many people would believe.\(^{107}\)

Court then used this statement to argue that the ratified agreement was required:

…to give these companies which we regard as reputable the right to go into the world’s markets to negotiate and sell iron ore for us; because if we do not give them good title, they will not have a chance of selling our iron ore.\(^{108}\)

He also commented that:

...we do not want to give anyone the impression that an industry is signed, sealed and delivered.\(^{109}\)

In the debate on the Cleveland Cliffs 1964 Agreement Court observed that there was competition to sell iron ore to Japan at a time when there was oversupply. He expected that the Japanese might be prepared to offer starting contracts for a total of 5mt/a to the Pilbara producers (Mount Goldsworthy, Hamersley Iron and Mount Newman) and thought this

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\(^{109}\) Ibid, p. 1673.
quantity might be split among the companies. It would then be for the companies to decide if
the amount offered was enough to support an economic operation from the start or if the
promise of future tonnages was enough to encourage investment today.  

The importance of obtaining contracts for pellets for the Cleveland Cliffs project was made
clear in the preamble to the Cleveland Cliffs 1964 Agreement:

*The company has informed the state that it is prepared to carry out the works referred
to in clause 9* \[emphasis added\] contracts could be concluded...  
*for the sale of not less than 1,800,000 tons of pellets during the first two years from
the export date... and not less than 3,600,000 tons in subsequent years.*  

The agreement also required the company to give notice prior to 31 December 1965 that it
had entered into contracts for the sale of pellets and there were provisions for the ending of
the agreement if contracts could not be obtained.  

During the debate on the Mount Goldsworthy 1964 Agreement, Court observed that:

*It is impossible to predict at this stage which of the major companies will receive
contracts for the mining and export of iron ores from the Pilbara. It is not likely
[emphasis added] that they will all be able to obtain contracts at this juncture of
sufficient size to warrant the heavy capital expenditure that is involved, but we are
hopeful that at least one or more [emphasis added] will receive contracts in the
reasonably near future.*  

In recognition of this doubt, companies which did the work required under an agreement
were entitled to security. According to Court their rights would be:

*...protected for a reasonable [emphasis added] period so that they can participate in
what would appear to be an inevitable second wave of contracts if the Pilbara region

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100 Court, *WAPD*, 24 November 1964, pp. 2912, 2913.
111 Construction of the mine, pellet plant, railway, port, roads and towns required for the project.
112 Agreement scheduled to Iron Ore (Cleveland-Cliffs) Agreement Act, No 91 of 1964, preamble (h).
113 Agreement scheduled to Iron Ore (Cleveland-Cliffs) Agreement Act, No 91 of 1964, clauses 5(1) and 5(2).
is to supply the proportion of Japanese and other overseas markets that we feel it is reasonable to expect. These things cannot be achieved in a year or two.\textsuperscript{115}

An alternative view to the ratification and then holding of agreements while waiting for markets was put by the Leader of the Opposition in the Upper House, Frank Wise, who warned that:

\textit{It is giving to the companies who have been fortunate to be in an agreement with the crown a right...for a very long period to have an open cheque for something to sell which is worth many millions of dollars.}\textsuperscript{116}

The Leader of the Opposition, Bert Hawke, expressed concern as to the amount of iron ore allowed to be held in an undeveloped form by various companies:

\textit{...one cannot feel overenthusiastic about supporting... the agreements dealing...with the taking over of large scale iron ore deposits in our north west... We seem to have reached a stage...where nothing worthwhile in the form of iron ore deposits is held any longer in the name of the people of the state...future generations might easily live to curse us for what has happened.}\textsuperscript{117}

Court had a different view as evidenced by his comments that:

\textit{These agreements were inevitable as no government could expect companies to spend large sums of money and undertake highly skilled work without clarification of their rights as a basis for negotiation. It would have been a brave government that set itself up as an arbiter as to which was the best deposit and which was the best company to work it.}\textsuperscript{118}

And:

\textit{The important thing is to get the areas opened up quickly and on a big enough scale. The main avenue through which this can be done is the export of what is known as direct shipping ore. However the arrangements provide for processing...on a logical programme}\textsuperscript{119}

\textsuperscript{115} Ibid, p. 1913.
\textsuperscript{116} Wise, \textit{WAPD}, 12 November 1964, p. 2549.
\textsuperscript{117} Hawke, \textit{WAPD}, 24 November 1964, p. 2910.
\textsuperscript{118} Court, \textit{WAPD}, 27 October 1964, p. 1911.
\textsuperscript{119} Ibid, pp. 1907, 1908.
And:

It is the government’s desire that we get these deposits opened up; and that roads, railways, ports and towns be established...in our time and not leave the iron ore lying in the ground, hoping that somebody will come along and do something about it.\(^{120}\)

These views were mirrored by Minister Griffith:

*In each of the agreements the companies involved are experienced, reputable companies...which will not only actively open up areas for export* *if given reasonable contracts by the Japanese* [*emphasis added*] *but will progressively develop their enterprise to provide a reasonable degree of processing within our state. This last factor is our long term objective...it is the processing that provides the employment and the big boost to the economy, but we have to be realistic about the matter. Without the direct shipping ore exports there would be no chance of getting these areas opened up.*\(^{121}\)

The opposition objected to the development of multiple projects with agreements competing for Japanese contracts. Labor’s view was that, as the Japanese purchased as a cartel, the best response was to sell from only one mine at a time. This would allow for a stronger negotiating position on price and volume in what was seen as a buyer’s market.\(^{122}\) In response Court did not dispute that the Japanese bought as a cartel, but argued that the best approach was to open the whole of the Pilbara iron ore field.\(^{123}\) These were contrasting views, but the government was in the position to pursue its approach and this was reflected in the agreements.

The government’s aim was to achieve processing through the agreements, the ultimate objective being to achieve a second steelmaking operation in the state.\(^{124}\) The opposition did not debate the processing provisions in themselves or suggest alternative approaches, although there was agreement that processing was a good thing that could bring additional

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\(^{120}\) Court, *WAPD*, 18 October 1963, p.1681.

\(^{121}\) Griffith, *WAPD*, 4 November 1964, p. 2188.

\(^{122}\) Various comments in speeches by Bickerton, Moir and Hawke in *WAPD*, 3 November 1964, pp. 2129-2143.

\(^{123}\) Court, *WAPD*, 3 November 1964, p. 2147.

benefits beyond those from mining. The opposition suggested that the secondary processing in the Hamersley Range 1963 Agreement could have been done earlier and should have been a contractual obligation. The government responded that it hoped for earlier processing than the timing that had been negotiated. However the Pilbara agreements were for projects that were not certain to proceed and this made them different from the BHP Kolyanobbing agreement the government believed that BHP had a contractual obligation for a steelworks at Kwinana.

The above discussion makes it clear that the market situation, when combined with the government’s view that multiple projects should be allowed to compete for ore sales and that the agreements were vehicles to promote projects, meant that it could not demand contractual type arrangements for processing in return for access to ore. Instead it had to negotiate agreed terms with the companies holding the rights to ore; even though those rights had been provided by the government and this could have been expected to place the government in a strong position to demand binding processing commitments. However, the ability of the government to require processing and to set the timing and amounts of processing was limited by its own policies which were directed primarily at achieving immediate development of the Pilbara through mining development. This ruled out requiring processing from the start or by a very early date at the risk of delaying development. The government may also have been tempered by the belief that a BHP steelworks at Kwinana was a contractual commitment that would be met. There was then no incentive to risk holding up mining development in the Pilbara by demanding early processing in return for mining rights.

Agreements and processing obligations

Hamersley Range 1963 and Mount Newman 1964 Agreements

The processing provisions in the Hamersley Range 1963 and Mount Newman 1964 Agreements as initially ratified were similar and the government amended the former in 1964.

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126 Tonkin, WAPD, 15 October 1963, p. 1673.
127 Court, WAPD, 16 October 1963, p. 1681.
128 Court, WAPD, 15 October, 1963, p. 1673.
129 Court, WAPD, 18 October 1963, p. 1681.
130 Court, WAPD, 15 October 1963, p. 1673.
to make them identical for all practical purposes. Both provided for secondary processing proposals to be submitted before the end of the tenth year from the date of first export (in the case of Hamersley Range, 22/8/1966 and 1/4/69 for Mount Newman) and for steelmaking proposals to be submitted before the end of the twentieth year.

While the form of the secondary processing was not specifically defined in the agreements, Court expected that pelletising of fine ore would be undertaken and expressed confidence that this would be achieved ahead of the timetable in the case of the Hamersley Range 1963 Agreement secondary processing obligation. Court also said that the agreements had identical steelmaking obligations because of the size of the deposits and the long term nature of the projects.

Recognising that both agreements called for steelmaking, Court and Griffith jointly commented to Cabinet that:

*The timetable system and the conditions under which steel has to be undertaken are such that they allow the government of the day, and all the companies concerned, ample latitude to handle the steel position in a practical and sensible way, thus avoiding a number of uneconomic enterprises, but at the same time ensuring so far as it is possible at this point in time that at least one company undertakes the establishment of a second steel industry in Western Australia.*

No rationale was given in parliament or in the cabinet submissions for the ten year time periods from the commencement of exports to the submission of secondary processing

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131 Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 98 of 1964.
132 Dept of Industrial Development (DID) file 517/72 vol 6, also Department of Mines Annual Report for 1966, p. 34.
134 Agreement scheduled to the Iron Ore (Hamersley Range) 1963 Agreement Act, No 24 of 1963, clauses 12(1) and 13(1) and Agreement scheduled to Iron Ore (Mount Newman) Agreement Act, No 75 of 1964, clauses 11(1) and 12(1).
135 See secondary processing in interpretations clause (Clause 1) of the Agreements scheduled to Iron Ore (Hamersley Range) Agreement Act, No 24 of 1963 and to Iron Ore (Mount Newman) Agreement Act, No 75 of 1964.
139 This was a clear indication that the state saw the BHP steelworks at Kwinana as a *fait accompli*.
140 Cabinet minute by Court as Minister for Industrial Development and Griffith as Minister for Mines, “Agreement with Mount Newman Iron Ore Company Limited”, 20 July 1964, Premier’s Department file 215/64.
proposals. However the government believed that cash generated from the exporting of iron ore would enable processing in the future\footnote{Court, \emph{WAPD}, 24 August 1967, p. 588, where he said: ‘We had to negotiate all these agreements on the basis of getting the companies into production as quickly as we could. This meant the construction of the mines, towns, railways and ports. It was therefore logical to allow some cash flow to generate through the export of iron ore. There is a program in all of the Agreements for us to proceed by logical phases through pellets, and then to more advanced forms of processing’. Also speech by Court “Iron Ore Policy in Australia” given to the 10th Annual Congress of the Latin American Iron and Steel Institute, 11 August 1970, Caracas, Venezuela in which he said ‘[The developers] have a period in which to generate a strong cash flow from the sale of untreated ore. This cash flow is expected to help them capitalize the processing phases right up to the ultimate production of steel or other approved product. Our agreements lay down generous time scales, but we rely on our developers to move into processing at the earliest possible moment.’} and this period may have been judged to be sufficient time to meet this requirement. In contrast a rationale was given in parliament for the twenty year time period for steelmaking based on the plant meeting steel requirements in Australia.\footnote{Court, \emph{WAPD}, 26 September 1963, p. 1423 where he said that: ‘…with all the research available to the government it was apparent that the most optimistic estimate on present information for the establishment of a second iron and steel industry in Australia on an economic basis was 20 years’. This shows that an export steel operation was not in mind at that time although, as will be seen later in this thesis, the focus over time has been on steel for export rather than for the domestic market.}

The then deputy leader of the opposition, John Tonkin, questioned whether the agreements provided any guarantee of processing as:

\begin{quote}
There is no obligation on the company to establish this upgrading plant so far as I can see. Why could we not contract to get this in earlier, and make it an obligation on the company to do it?\footnote{Tonkin, \emph{WAPD}, 15 October 1963, p. 1675.}
\end{quote}

Court responded that:

\begin{quote}
…the company did not want to commit itself to a steel industry except if it proved, in the opinion of the company, to be economically desirable and practicable. …the agreement provides for the company to undertake the export of iron ore and the upgrading of iron ore and steel. If it does not meet its commitments in respect of those things..., [the agreement] provides that the government has the right ...to take these deposits away from the company and to give them to someone else who is prepared to [process]…the government has gone as far as it could reasonably be expected to go.\footnote{Court, \emph{WAPD}, 15 October 1963, p. 1679.}
\end{quote}
In both agreements the same complex provision was made for other parties to take over the agreement by meeting the processing obligations if the company failed to meet the obligations. There was no direct economic test in the agreement wording; the obligations had to be met or the companies were at risk of losing the agreement and with it the rights to mine and export iron ore. There was an indirect economic test in that the introduction of a new party by the government could not be done on better terms than were available to the company. Clearly, if no party could be found by the government to do what the company was required to do under the agreement, then it was a reasonable inference that the obligation could not be met on an economic basis.

The only direct relief provision for the company from the threat of losing the agreement to another party was the general power given to the Minister to extend any date in the agreement at the request of the company. Given the comments by Court and Griffith that uneconomic or unrealistic processing would not be forced on the companies, there would be a reasonable expectation by the companies that arguments for extensions couched in these terms were likely to be accepted.

A company with an obligation falling due could be expected to argue for an extension of time, rather than see the provisions for the possible entry of other parties triggered. No company would want the uncertainty that would be caused for it, its customers and its financiers by the operation of clauses that opened the project up to the risk that another party may take on the obligation.

Equally the government would not want to put effort into a doomed attempt to bring in another party to undertake processing where it had credible evidence that such processing was not economically feasible. This would be a complex and risky procedure for the government (since the company received a ten year extension if no third party was introduced and significant damage could be done to the project while the government searched for a

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145 Agreement scheduled to the Iron Ore (Hamersley Range) 1963 Agreement Act. No 24 of 1963, clauses 12(3) and 13(3) and Agreement scheduled to Iron Ore (Mount Newman) Agreement Act, No 75 of 1964, clauses 11(3) and 12(3).
party willing to take on the obligation). It is no surprise that the clauses have never been triggered and extensions of time have been used instead (as will be seen later in this thesis).

**Mt Goldsworthy 1964 Agreement**

The original Mount Goldsworthy Agreement did not include processing requirements, although the ore was of a quality that processing obligations could have been imposed. The ore was allocated through a tender process after the deposit had been drilled by government to establish the ore resource. A requirement for processing was not included in the tender requirements. The amount of ore that could be shipped was restricted to up to 15 million tons at a rate of up to one million t/a. The government planned to use the royalty revenue for:

*...long term works, such as country water supply or the development of our out ports...*  

The 1962 agreement was repealed and replaced by a new agreement in 1964 that included Mining area ‘B’ (a cluster of areas to the south east of Mount Goldsworthy) and Mining area ‘C’ (a large area in the Central Pilbara). There was no longer any restriction on the amount of ore that could be exported and secondary processing obligations were introduced in relation to Mining areas ‘B’ and ‘C’.

The cabinet submission by Court and Griffith in relation to the new agreement stated that it was:

*...unrealistic to have a steelmaking obligation as the areas available to the company are not expected to yield anything like the tonnages of high grade iron ore that are expected to be available to Hamersley Iron and Mount Newman.*

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149 Agreement scheduled to Iron Ore (Mount Goldsworthy) Agreement Act, No 9 of 1962.
153 From press statement by Premier Brand 18 May 1959, Premier’s Department file 87/59.
154 Agreement scheduled to Iron Ore (Mount Goldsworthy) Agreement Act, No 97 of 1964. The deposit that was subject to the 1962 agreement was designated as Mining area ‘A’ in the 1964 agreement.
156 Cabinet minute by Court as Minister for Industrial Development and Griffith as Minister for Mines, “Mount Goldsworthy Agreement Revision”, 12 October 1964, Premier’s Department file 376/64.
In their second reading speeches both noted that, as the size and nature of the deposits were different from those of the Hamersley Range 1963 and Mount Newman 1964 Agreements, they did not warrant steelmaking requirements.

The agreement provided for the submission of detailed proposals for a secondary processing plant processing 2mt/a of ore and for a upgrading plant producing 1mt/a of upgraded beneficiated ore; provided mineral leases had been applied for over mining areas ‘B’ and ‘C’. Proposals for the secondary processing plant were due within eight years of the export date under the agreement (3 June 1966) and for the upgrading plant within 17 years. Both Court and Griffith said in parliament that advanced forms of processing, which stopped short of producing iron or steel, were expected. There were provisions similar to those in the Hamersley Range 1963 and Mount Newman 1964 Agreements for the introduction of other parties if the processing obligations were not met.

**Hanwright 1967 Agreement**

The areas under the Hanwright 1967 Agreement contained a mix of haematitic Brockman and goethitic Marra Mamba ores although there was no direct recognition of the ore types in the agreement. However there are comments in the Cabinet submission that haematitic Brockman ores would be the export ores as they were ore of direct shipping quality which indicates the presence of these ores in the agreement areas. Court commented that the company had thought that the project would be based from the start on the export of pellets

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158 Agreement scheduled to Iron Ore (Mount Goldsworthy) Agreement Act, No 97 of 1964, clause 12.
159 Expected to be a pellet or similar product plant, see Court, *WAPD*, 27 October 1964, p. 1913.
161 Ibid, clause 11(6). If an application was not made the rights to the two mining areas would be lost (clause 11(7). There would no longer be any processing obligations and mining could continue at Mining area ‘A’ without interruption or restriction.
162 DID file 374/73.
163 Upgrading of ore was defined as the additional upgrading of beneficiated ore by some form of semi or direct reduction process or other mutually agreed process (Agreement scheduled to Iron Ore (Mount Goldsworthy) Agreement Act, No 97 of 1964, clause 13(1).
165 Agreement scheduled to Iron Ore (Mount Goldsworthy) Agreement Act, No 97 of 1964, clauses 12(3) and 13(4).
166 Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 19 of 1967.
167 Cabinet submission by Court, “Hancock and Wright- Iron Ore (Lockyer) Agreement, 7 July 1967, Premier’s Department file 302/67."
made from goethitic (marra mamba) ores, but further work had identified sufficient haematitic ores for shipments of direct shipping ore.\textsuperscript{168}

The agreement called for pellets to be produced from the start of the project,\textsuperscript{169} with production of metallised agglomerates (MA)\textsuperscript{170} or steel (at company election) to follow in the future.\textsuperscript{171} A pellet plant of at least one million t/a capacity was to be built initially and expanded to at least three million t/a capacity within ten years of the commencement date.\textsuperscript{172} If MA was chosen there was to be progressive development of a plant to be capable of producing not less than three million t/a of MA.\textsuperscript{173} In the case of steel the requirement was for the progressive development of a plant capable of producing not less than one million t/a.\textsuperscript{174}

The expectation was that MA would be the preferred processing option as:

\begin{quote}
...reference to steel is only made in case the company cannot successfully embark on the production of metallised agglomerates...
\end{quote}\textsuperscript{175}

Court also made comments on the potential for MA during the debate on the Nimmingarra 1967 Agreement that reflected a shift in thinking away from steel and pellets that had previously dominated agreement thinking and provisions:

\begin{quote}
The whole of the emphasis in our research work is on metallising... It is our conviction that the trend in the world in the future will be towards the export of metallised products ...The most likely form is metallised agglomerates...As a result of
\end{quote}

\textsuperscript{168} Court, \textit{WAPD}, 5 September 1967, p. 727.
\textsuperscript{169} Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 19 of 1967, preamble (a) and clause 8.
\textsuperscript{170} Metallised agglomerates were defined in the agreement to be ‘products resulting from reduction of iron ore or iron ore concentrates by thermal or other means...or from some equivalent or more advanced form of metallising process’ (Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 19 of 1967, clause 1). Reduction is the removal of oxygen from the iron oxides in the iron ore leaving behind iron in the metallic state. This is done by using coal or natural gas to remove the oxygen, usually with the iron ore heated, but the product is not melted. When the process produces the product iron in a melted state it is referred to as a direct smelting whereas the solid state reduction product is referred to as direct reduced iron (DRI). The use of MA as a generic reference in agreements makes it convenient to use MA in this thesis whenever reference is made to DRI products, although MA should strictly only apply to iron ores that have been sintered or pelletised before being sent to the reduction process. Where ores in their native state are reduced the more correct term to use is DRI. MA is actually a sub set of DRI products. For the purposes of this thesis it is less confusing to use MA than to use both terms, so MA has been used except where the text requires DRI to be used.
\textsuperscript{171} Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 19 of 1967, clause 11.
\textsuperscript{172} Ibid, clause 9(1).
\textsuperscript{173} Ibid, clause 11(1)(a)(i). These tonnages applied to a MA product of 90% iron or more. If the project decided to produce MA of more than 85% but less than 90% iron, the tonnages were increased by 25%.
\textsuperscript{174} Ibid, clause 11(1)(a)(ii).
\textsuperscript{175} Court, \textit{WAPD} 5 September 1967, p 727.
research and advice throughout the world, in our opinion this will set a new method in the buying pattern of the steel industries in the world in countries that do not have indigenous raw materials…they cannot go on bringing in these huge quantities of ore and coal...once the production of metallised agglomerates...commences I think this will set a new pattern of buying in the steel industry [in] countries that do not have indigenous materials...There is another advantage...they do not require coking coal [as] they can use steaming coal, such is available at Collie.176

The company could sell unprocessed ore before the pellet plant was in production, but any exports made from the fifth year after the commencement date where the pellet plant was not in operation were liable for double the royalty rate until it commenced production.177 In addition, the company was required to pay a lump sum on exports already made as if the higher royalty rates had applied from the commencement of exports. Court saw these requirements as part of the state policy of encouraging processing,178 with similar provisions included in the Ninningarra 1967 Agreement for the same reason.179 The royalty increase for Hanwright was double that for the Ninningarra case and Court foreshadowed that the same approach would be taken with future agreements as a means of encouraging processing to meet agreement timings.180

The agreement did not have any provisions for the introduction of other parties by the state if the MA/steel processing obligation was not met. However, once the project was in operation iron ore exports were restricted to amounts approved by the Minister with a ceiling of 2.5 times the amount used in the pellet plant or 4 times the amount used in the MA or steel plant.181 This condition was also seen as way to encourage early processing under the Agreement.182 An opposite view was taken in the Hamersley Range 1963 and Mount Newman 1964 Agreements, where there were no limitations on

176 Court, WAPD, 22 August 1967, pp. 587, 588.
178 Court, WAPD 5 September 1967, p. 730.
179 Court WAPD, 24 August 1967, p. 587.
180 Court, WAPD 5 September 1967, p. 730. There were no penalty royalties in the agreements entered into before 1967.
181 Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 19 of 1967, clause 8(1)(g).
182 Court, WAPD 5 September 1967, p. 729.
exports of iron ore, which was seen as a positive encouragement for the projects and processing.\textsuperscript{183} Offsetting this freedom were the provisions for the entry of other parties.

**Incentives for processing**

There were limited provisions in the agreements that were designed to ‘encourage’ processing. The relevant clauses are shown in the table below.

Table 3.1 Provisions in early agreements to encourage processing

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Royalty concessions</td>
<td>10(2)(j)</td>
<td>9(2)(j)</td>
<td>9(2)(j)</td>
<td>9(2)(j)</td>
<td>9(2)(j)</td>
</tr>
<tr>
<td>Rental concessions</td>
<td>10(2)(l)</td>
<td>9(2)(l)</td>
<td>9(2)(l)</td>
<td>9(2)(l)</td>
<td>9(2)(l)</td>
</tr>
<tr>
<td>Royalty penalties</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>50% increase</td>
<td>100% increase (pellets only, not for other processing)</td>
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<tr>
<td>Third/fourth party entry</td>
<td>12 (secondary processing)</td>
<td>11 (secondary processing)</td>
<td>12 (secondary processing)</td>
<td>12 (secondary processing)</td>
<td>No provision</td>
</tr>
<tr>
<td></td>
<td>13 (iron &amp; steel)</td>
<td>12 (iron &amp; steel)</td>
<td>13 (upgrading to MA or like)</td>
<td>No provision</td>
<td>No provision</td>
</tr>
</tbody>
</table>

The royalty and rental provisions provided for lower payments to the state if processing was undertaken and applied from when the processing commenced. The royalty penalties were an increase in royalties on iron ore exports while processing was not being done. There were no provisions for the state to pay these royalties back if processing was done. These could be significant ‘encouragements’ but they were never tested. The Niningarra 1967 Agreement did not see a project developed and the Hanwright 1967 Agreement was modified in 1968 and the penalties were lost in this process.\textsuperscript{184}

The third and fourth party entry provisions were potentially a strong incentive to process; although as discussed earlier it was probably unlikely that another party would be able to do processing that the agreement party found to uneconomic. But the commercial implications of having a ‘window’ for another party to take over the agreement would make sure that the company took the obligation seriously, if only to ensure that the state agreed to extensions of


\textsuperscript{184} See Chapter 3 Part 2.
time rather than look to introduce other parties. This may have been a factor but the provisions themselves were never invoked.\textsuperscript{185}

The most significant ‘encouragement’ in money terms was the reduced royalty rate of 15c per ton for iron ore used in processing (with provision for escalation). Royalties were the major revenues received by the state and foregoing them through the processing concession was seen by the state as a means of encouraging processing.\textsuperscript{186} But the later discussion on meeting obligations does not provide any indication that the concession was a major factor in company decisions.\textsuperscript{187}

The only other monetary concession offered in the agreements for processing was a reduction in the mining lease rentals, but these were reductions of less than $4 000 per year and could be considered to be insignificant.

**Summary and Conclusions**

The agreements discussed in this section were enacted in the period 1963 to 1967. The next totally new Pilbara iron ore agreements were not seen until 1972.\textsuperscript{188} The agreements of interest to this thesis are those that involved a period of shipping of high grade ores (termed direct shipping ores) before processing obligations fell due. These obligations ranged from the production of pellets through to MA and steel with the expectations determined by the amount and quality of the resource base available to each agreement.

- The haematitic brockman ores held under the Hamersley Iron 1963 and Mount Newman 1964 Agreements were seen as being a large resource of high grade ores. They could be shipped without processing and were able to support steel production in the future, as well as an earlier secondary processing obligation (expected to be pellets produced from fine ore).
- The Mount Goldsworthy 1964 Agreement had a mix of areas that were high grade (Mount Goldsworthy itself), low grade (nearby) requiring upgrading and possibly

\textsuperscript{185} See Chapters 6 and 7 where the meeting of obligations is discussed in detail.
\textsuperscript{186} Court, *WAPD*, 24 August 1967, p. 588.
\textsuperscript{187} See Chapters 6 and 7 where the meeting of obligations is discussed in detail.
\textsuperscript{188} Agreement scheduled to Iron Ore (Rhodes Ridge) Agreement Authorisation Act, No 36 of 1972, and Agreement scheduled to Iron Ore (McCamey’s Monster) Agreement Authorisation Act, No 104 of 1972.
high grade (Central Pilbara brockman and marra mamba). The government took the view that the resource base would not support a steel industry, but could support both a secondary processing based on the low grade ores and an upgrading obligation based on the central Pilbara resource base.

- The Hanwright 1967 Agreement had a mix of ores and was expected to commence by shipping haematite ores with pellets produced from goethitic ores to follow soon after. MA (expected) or steel (if chosen by company) were future obligations.

The limonitic pisoliths held under the Cleveland Cliffs 1964 and BHP 1964 Agreements were lower quality ores that required some degree of treatment before they could be sold. It was expected that they would be exported as pellets from the start of the projects and there was no provision for future additional processing. The Nimmingarra 1967 Agreement iron ore resources were not suitable for export or pelletising as they had low iron contents and would require upgrading of their iron content before they could be considered to be suitable for export or processing.

Had all of the processing expectations set out in the agreements (see table below) the Pilbara could have seen the establishment over time of five secondary processing/pellet plants (all expected to produce pellets giving a total potential production of 12mt/a). There could also have been up to three steel plants (3mt/a), up to three MA plants (4.75mt/a) and possibly a ferro manganese plant (0.15mt/a). The actual plants and capacities would depend on choices made under the Nimmingarra and Hanwright 1967 Agreements.

Table 3.2 Early agreements and summary processing obligations

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamersley Range 1963</td>
<td>secondary processing (2mt/a), steel (1mt/a)</td>
</tr>
<tr>
<td>Mount Newman 1964</td>
<td>secondary processing (2mt/a), steel (1mt/a)</td>
</tr>
<tr>
<td>Mount Goldsworthy 1964</td>
<td>secondary processing (2mt/a), upgrading of beneficiate (1mt/a)(to MA</td>
</tr>
<tr>
<td>Cleveland Cliffs 1964</td>
<td>pellets (3mt/a)</td>
</tr>
<tr>
<td>Nimmingarra 1967</td>
<td>MA (0.75mt/a) or ferro manganese (0.15mt/a)</td>
</tr>
<tr>
<td>Hanwright 1967</td>
<td>pellets (3mt/a), MA (3mt/a) or steel (1mt/a)</td>
</tr>
</tbody>
</table>
Part 2

Making adjustments to the early agreements (1968-1971)

Introduction

While the scene was already set for the start of the Pilbara iron ore industry there were adjustments to existing agreements to meet changing circumstances. No new agreements were entered into in this period. The most significant adjustments were;

1) BHP joined the Mount Newman project and agreement at a time when the project was having difficulty and likely to have been delayed for some time (see below).

2) The Cleveland Cliffs project ran into problems\(^{189}\) and the company considered joining the Mount Newman project at the same time as BHP and developing a pellet plant based on using haematitic brockman fine ore, rather than the Robe River limonites.\(^{190}\) The company decided not to join the project\(^{191}\) and this was seen as, at the very least, delaying the project and, at worst, seeing the project fail to proceed.\(^{192}\)

3) BHP did not develop a project under the BHP 1964 Agreement. Instead the company joined the Mount Newman project and received a 10 year extension of time (to 30 June 1975) for the submission of proposals under the agreement.\(^{193}\)

4) Hamersley Iron essentially took over the Hanwright 1967 Agreement. This saw part of the iron ore areas taken out and into the Hamersley Range 1963 Agreement through

\(^{189}\) While the issues surrounding the development of a project under the Cleveland Cliffs 1964 Agreement are not directly relevant to this thesis, they do underline the points made earlier in this chapter that the agreement projects were not certain to proceed. The problems with finding iron ore resources to support the submission of proposals under the Nimmingarra 1967 Agreement goes to the same points. Court noted in a detailed minute circulated to cabinet ministers dated 7 May 1966 concerning his negotiations with BHP about the Mount Newman project that; ‘Cleveland Cliffs is in financial difficulties to meet revised capital estimates…’ (DID file 23/67); Court also said in a cabinet submission, “Mt Newman”, 22 August 1966, that; ‘…Cliffs found on closer investigation that the Robe River capital costs were far in excess of their original estimates and…they could not raise the necessary capital.’ (DID file 23/67); also Minute to Premier and Minister for Mines from Court, 9 September 1966, where he noted that Cliffs had said the project was uneconomic, had lost a very valuable pellet contract and had done considerable damage to relationships with Japan (DID file 131/66 vol 1).

\(^{190}\) See minute on file by Court, 7 May 1966, DID file 23/67.


\(^{192}\) Court noted in a detailed minute circulated to cabinet ministers dated 7 May 1966 concerning his negotiations with BHP about the Mount Newman project that:…..’Cleveland Cliffs have found Robe River far too costly from a capital point of view and for all practical purposes we have to consider this to be ‘washed up’ at least for a very long time.’ (DID file 23/67).

\(^{193}\) Agreement scheduled to Iron Ore (Dampier Mining Company Limited) Agreement Act, No 78 of 1969, clause 9.
a 1968 variation and developed as the Paraburdoo mine, with the remainder held under the Hanwright 1968 Agreement by HI and Hanwright (see below).

5) The Nimmingarra 1967 Agreement proposals deadline was extended and in early 1969 it was recognized that the lack of success in finding ore reserves in the agreement areas made changes necessary\(^{194}\), but the agreement was not varied before the government changed in early 1971.

Also in this period Hamersley Iron established a pellet plant at Dampier that met the secondary processing obligation under the Hamersley Range 1963 Agreement.\(^{195}\) This was the first processing plant in the Pilbara and the first established under an agreement.

**BHP joins the Mount Newman project**

BHP came into the Mount Newman project and agreement as 30% partner through a 1967 variation to the Mount Newman 1964 Agreement.\(^{196}\) The other participants agreed to take on all of the processing obligations.\(^{197}\) This required a complex agreement amendment that allowed BHP to hold the agreement if the other participants defaulted on the processing obligations and another party was able to be introduced to the agreement by the state.\(^{198}\) That party would then replace those participants in all respects and BHP would remain exempt from the processing obligations.

Given that the state had a clear policy of trading access to iron ore for development, including processing, it could have been expected that BHP would have been required to take on its share of the processing obligations under the Mount Newman 1964 Agreement. However, Court told cabinet in August 1966 that Amax and CSR had advised him that, if BHP did not

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\(^{194}\) Under the Nimmingarra 1967 Agreement proposals were due to be submitted by 30 September 1967. The agreement company, Sentinel Mining, requested and received a nine month extension of time from the Minister, something that was, unusually, reported in the press (“Sentinel Mining Gets More Time”, *The West Australian*, 3 October 1967, DID file 148/64). Court was reported as arguing that an extension was justified by the work done and the complex nature of the deposits. Further extensions of time were granted as evidenced by the fact that the agreement was still in force in early 1969 when amendments to the Nimmingarra 1967 Agreement (at the request of Sentinel Mining) were requested of cabinet by Court (Cabinet minute from Court, 27 February 1969, Premier’s Department file 46/69).

\(^{195}\) Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 48 of 1968, Preamble (b) and Department of Mines Annual Report 1968, p. 24.

\(^{196}\) Agreement scheduled to Iron Ore (Mount Newman) Agreement Amendment Act, No 63 of 1967.

\(^{197}\) To be done through the execution of a deed of convenant with the state that excused BHP from the obligations while the BHP share remained below 35%. See Cabinet submission by Court, 18 November 1966, Premier’s Department file 350/66.

join the project, then they would not proceed with the project. He also said that BHP would only join if proposals under the BHP 1964 Agreement were deferred for 10 years and that BHP would not take on any part of the Mount Newman processing obligations.

Court commented in parliament that if BHP took on the Mount Newman obligations it would have meant it was duplicating its existing commitments under the BHP 1964 Agreement. This hardly seems to be sufficient public justification given that by entering the Mount Newman project BHP gained access to new and high grade ore deposits while retaining the deposits held under the BHP 1964 Agreement. However processing did not attract any attention in the parliamentary debate; the entry of BHP was seen by the only opposition speaker during the lower house debate as important to achieving the project’s start-up. The extension of time for Deepdale was therefore seen as a reasonable exchange for BHP entering the Mount Newman project.

Hamersley Iron obtains mining areas from the Hanwright 1967 Agreement and enters that agreement (through Mount Bruce Mining Pty Ltd)

Hamersley Iron (HI) reached agreement with Hancock and Wright (H&W) for part of the Hanwright 1967 Agreement areas to be transferred to HI control and for Mount Bruce Mining Pty Ltd (Mount Bruce), to enter the agreement. These commercial arrangements required changes to the Hamersley Range 1963 Agreement (through the Hamersley Range 1968 Agreement) and the Hanwright 1967 Agreement (through the Hanwright 1968 Agreement). There were complex changes to the processing obligations under both agreements as a result.

Court saw that the inclusion of the Paraburdoo deposits into HI’s operations would result in extension of the period of mining of the high grade Mt Tom Price ores. He also said at the

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199 Cabinet submission by Court, 22 August 1966, DID file 23/67.
200 See minute on file by Court, 7 May 1966, DID file 23/67.
201 Court, WAPD, 16 November 1967, p. 2195.
203 Commonly known as the ‘Paraburdoo’ areas (Court, WAPD, 15 October 1968, p. 1716).
204 Owned 75% by HI and 25% by H&W.
205 As a joint venturer with H&W.
206 Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 48 of 1968, commonly known as the Paraburdoo agreement.
207 Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 49 of 1968.
208 Court, WAPD, 15 October 1968, p. 1711.
time that the Paraburdoo Agreement was of great significance in furthering the processing of iron ore as the agreement contained:

...a firm commitment to produce metal (MA) in the north by the end of 1972. This is a major breakthrough in our objective to develop a major partnership as a supplier of natural and processed materials to the steel industries of the world which have not got indigenous raw materials.\(^{209}\)

The Hanwright 1968 Agreement made provision for Mount Bruce to take full ownership of the Hanwright Agreements.\(^{210}\) New provisions relating to pellets, MA and steel production were included.\(^{211}\) The existing obligations were for the construction of a 3mt/a pellet plant (to be included in the initial proposals) and a future obligation to construct (at the choice of the H&W) a 3mt/a MA plant or a 1mt/a steel plant.\(^{212}\)

In the changes the obligation to construct a 3mt/a pellet plant remained but this could be met by expanding the existing HI pellet plant beyond a capacity of 2mt/a.\(^{213}\) Alternatively the pellet plant obligation could be reduced to 500 000 t/a\(^{214}\) provided a MA plant with a capacity of 1mt/a was established.\(^{215}\) Court commented that this event:

...would represent a substantial economic gain to the state and we hope that the company will concentrate on metallised agglomerates, rather than on oxide pellets.\(^{216}\)

The new provisions\(^{217}\) for MA or steel continued to allow a choice between MA or steel, but brought the choice date forward by seven years.\(^{218}\) The amount of processing was unchanged but the proposals dates were advanced for MA (by seven years) and delayed for steel (by four years).\(^{219}\) If the company elected steel, the Minister was bound to accept this election.\(^{220}\) If

\(^{209}\) Ibid, p. 1708.
\(^{210}\) Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 49 of 1968, clause 5(1).
\(^{211}\) Ibid, clause 9.
\(^{212}\) Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 19 of 1967, clauses 9(1) and 11.
\(^{213}\) Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 19 of 1967, clauses 9(1) and 11.
\(^{214}\) Ibid, clause 8.
\(^{215}\) Ibid, clause 9.
\(^{216}\) Court, WAPD, 15 October 1968, p. 1713.
\(^{217}\) Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 49 of 1968, Clause 9 which replaced clause 11 in the Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 19 of 1967 with new clauses 11 and 11A through to 11K.
\(^{218}\) Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 19 of 1967, new clause 11A.
\(^{219}\) Ibid, new clause 11B and 11D.
\(^{220}\) Ibid, new clause 11A(b).
the company elected MA, the Minister could accept this and the processing obligation would be met through this route. However he could require the company to ‘choose’ steel. In that situation the Minister had the opportunity to introduce a third party to the agreement if the company did not submit proposals. The third party entry clauses were almost identical to the fourth party (steel obligation) introduction clauses in earlier agreements. He also had the option of ‘cancelling’ the requirement for steel if proposals were not submitted. The consequences of this decision were not mentioned in the agreement, but they were to be found in the Hamersley Range 1968 Agreement (as explained below).

The 1968 agreement also introduced provisions to cover a situation where, after a notice choosing MA had been given, MA establishment or expansion was not considered feasible: a submission to this effect could be made to the Minister. The company view could then be tested. If those tests supported the company view the MA obligation would lapse and there would be negotiation on a substitute obligation that was feasible.

In addition to the changes to processing obligations the penalty royalties that applied if pellets were not produced were removed. This change was not mentioned by Court or Griffith in parliament or by any of the other speakers. The lack of mention by the Ministers is perhaps not surprising given their strong statements in parliament about how the penalty would encourage processing. The change was masked in the Hanwright 1968 Agreement by the replacement of the 1967 agreement royalty clause, which was not really necessary as the other changes were minor. By changing the whole clause the change was easy to overlook unless attention was drawn to it, which did not happen.

221 Ibid, new clause 11A(a).
222 Ibid, new clause 11B(1).
223 Ibid, new clause 11B(2).
224 Ibid, new clause 11E(4) and (5).
225 Ibid, new clause 11E(4) and (5) and Clauses 13(3) and (4), 12(3) and (4) and 13(4) and (5) respectively.
227 Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 19 of 1967, new clause 11K.
228 Ibid, new clause 11C.
229 This substitute had to be related directly to the mining and metallurgical industry and represent economic development within the state approximately equivalent to the metallising operation.
230 Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 49 of 1968, clause 10(15).
232 Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 49 of 1968, clause 10(15).
The Hamersley Range 1968 Agreement had processing obligations for 3mt/a of MA included in return for the Paraburadoo areas.\textsuperscript{233} The agreement also provided for the steelmaking obligations under the Hamersley Range 1963 Agreement to be suspended if Mount Bruce gave notice that it would take over the 1967 Agreement from H&W.\textsuperscript{234} The obligation would only revive if the Minister gave notice under clause 11K of the varied Hanwright 1967 Agreement.\textsuperscript{235} If the Minister did not give that notice (which meant that the steel obligation had been met under the varied Hanwright 1967 Agreement) the steel obligation would be deleted from the Hamersley Range 1963 Agreement.\textsuperscript{236}

The table below summarises the processing obligations and required production timings for the Hanwright 1967 and 1968 Agreements and the Hamersley Range 1963 and 1968 Agreements before and after the 1968 agreements were in place.

Essentially there was an exchange of an obligation for 1mt/a of steel under the Hamersley Range 1963 Agreement for additional resource and 3mt/a of MA under the Hamersley Range 1968 Agreement, with the first production of MA due 19 years earlier than the first production of steel. The first production of MA under the Hanwright 1967 Agreement was brought forward 10 years and the first production of steel extended by four years. There was also the opportunity to produce MA in place of pellets and to use the expansion of the existing pellet plant to meet Hanwright agreement pellet obligations.

Table 3.3 Processing obligations and timings for Hamersley Range 1963 and 1968 and Hanwright Agreements

<table>
<thead>
<tr>
<th>Agreement Before 1968 Agreements</th>
<th>Processing</th>
<th>Timing</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamersley Range 1963 secondary processing Proposals 1mt/a 2mt/a</td>
<td>1976 1978 1982</td>
<td>Met by already established pellet plant</td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{233} Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 48 of 1968, clause 9.
\textsuperscript{234} Ibid, clause 13(1).
\textsuperscript{235} Ibid, clause 13(2). This notice could be given where the Minister wanted steel to be ‘chosen’ under that agreement instead of MA, the company failed to submit proposals as required and he preferred to give the notice rather than invoke the third party entry provisions.
\textsuperscript{236} Ibid, clause 13(2). It also followed that, if, under the varied Hanwright 1967 Agreement, MA was agreed to by the Minister or steel was chosen by the company, the Hamersley Range 1963 Agreement steelmaking obligation would also be met.
<table>
<thead>
<tr>
<th></th>
<th>Steel Proposals</th>
<th>1986</th>
<th>1991</th>
<th>1997</th>
<th>Set by commencement of exports August 1966</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mt/a pellets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 mt/a pellets</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>MA or steel choice with proposals for choice</strong></td>
<td>1982</td>
<td>1988</td>
<td>1992</td>
<td>Assumes proposals approved in 1968 (earliest commencement date under agreement)</td>
</tr>
<tr>
<td></td>
<td>1 mt/a MA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 mt/a MA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 mt/a MA</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>OR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.5 mt/a steel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 mt/a steel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>After 1968 Agreements</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hamersley Range 1963</td>
<td>2nd processing</td>
<td>No change</td>
<td>Met by already established pellet plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 mt/a</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.5 mt/a steel</td>
<td>Suspended</td>
<td>Can revive if Mount Bruce does not proceed with steel if required by Minister</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 mt/a steel</td>
<td>Suspended</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hanwright 1967 as amended by Hanwright 1968</td>
<td>1 mt/a pellets</td>
<td>1974</td>
<td>1979</td>
<td>Pellets dates extended by a year.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 mt/a pellets</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>OR</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>0.5 mt/a pellets</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>1 mt/a MA</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>MA or steel choice</strong></td>
<td>1982</td>
<td>1976</td>
<td>6 years earlier.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>MA proposals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 mt/a MA</td>
<td>1976</td>
<td>1978</td>
<td>1980</td>
<td><strong>MA initial capacity 10 years earlier, full capacity 13 years.</strong></td>
</tr>
<tr>
<td></td>
<td>2 mt/a MA</td>
<td></td>
<td></td>
<td>1982</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 mt/a MA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Steel proposals</strong></td>
<td>1987</td>
<td>1992</td>
<td>1997</td>
<td><strong>Proposals 5 years later and steel timing not affected whether company elects or Minister directs.</strong></td>
</tr>
<tr>
<td></td>
<td>0.5 mt/a steel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 mt/a steel</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 mt/a MA</td>
<td></td>
<td></td>
<td>1979</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 mt/a MA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 mt/a MA</td>
<td></td>
<td></td>
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</tbody>
</table>
Problems with the implementing Nimmingarra 1967 Agreement

Under the agreement proposals were due to be submitted by 30 September 1967. The agreement company, Sentinel Mining, requested and received a nine month extension of time from the Minister, something that was, unusually, reported in the press. Court argued that an extension was justified by the work done and the complex nature of the deposits. The agreement was still in force in early 1971 when approval was sought for the purchase by Mount Goldsworthy of the known high grade ores held under the agreement. Court noted that the low grade and manganiferous ores could not be developed and that development of the higher grade ores using the Mount Goldsworthy existing infrastructure was supported while acknowledging that the election precluded a formal government response. Mount Goldsworthy released a statement on the same day, confirming that it intended to purchase the iron ore reserves, subject to government approval. Effectively the agreement was ‘dead’ from then because of the lack of marketable ores to support a project unless the new Labor government had a different view of the situation and required Sentinel Mining to continue with the agreement.

Summary and conclusions

The entry of BHP into the Mount Newman 1964 Agreement made the achievement of the processing obligations more difficult as BHP was not required to meet the obligations, which meant they fell entirely on to the other joint venturers. Off-setting this was the risk that, if BHP did not join, the project might not go ahead for some time. The state, by its actions, decided that the project’s early start-up was the more important objective. While the BHP entry meant that the processing obligations could be harder to achieve, at least they would become active and fall due sooner than if BHP did not enter.

The changes to the Hanwright 1967 Agreement were extensive in anticipation of Mount Bruce replacing H&W. If that did not happen, the 1967 Agreement would continue with H&W with unchanged processing obligations. The provisions for processing were made more complex with the entry of Mount Bruce to the agreement. Most notably the Minister could, if MA was chosen over steel, direct that steelmaking was to replace the MA choice.

238 Press statement by Court, Charles, 10 February 1971, DID file 354/71/vol 1.
239 Ibid.
Having chosen MA the company could later decide that MA was not economic. There was a
process to test the company’s claims and if they were found to be correct a replacement
would be negotiated. These provisions that directly tested processing economics were a
new approach compared to the indirect testing through the third and fourth party entry
provisions found in earlier agreements.

The Hamersley Range 1968 Agreement included MA as the processing obligation in return
for the Paraburdo areas. The transfer of the Paraburdo areas and the placing of MA
obligations on HI were not dependent on any action by Mount Bruce under the Hanwright
1968 Agreement. However the existing HI steel obligation under the
Hamersley Range 1963 Agreement would be suspended and would only revive in certain
special circumstances. The agreement also included the same economic test on MA and
replacement possibility as was included in the Hanwright 1967 Agreement.

The splitting of the Hanwright areas allowed the early development of the Paraburdo
deposits by HI and set the scene for the development of the remaining areas left under the
Hanwright Agreements by HI/H&W. The splitting brought a greater focus on MA compared
to steel production. This fitted with the view expressed by Court that MA was going to be a
product in demand by steelmakers.

This was not an entirely new view as Court had noted this view in his second reading speech
for the Scott River 1961 Agreement. He talked about a world trend towards the use of
partly processed iron ore by steelmakers in place of imported raw materials that produced
large amounts of waste. This shows a significant continuity in Court’s thinking regarding
the possibilities of co-operation with steelmakers to see partial processing of iron ore in WA
for finishing into steel by those companies as these same views were expressed just prior to
the coalition losing government in 1971.

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242 See Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 19 of 1967, new clause 11C and
244 Court, *WAPD*, 3 October 1961, p. 1423. Agreement scheduled to Iron Ore (Scott River) Agreement Act, No
35 of 1961.
245 Ibid, p. 1427.
246 Court, “Iron Ore Policy in Australia”. 
Part 3

The Tonkin Labor government’s agreements (1971-74)

Introduction

During its period of office the Tonkin government was responsible for:

- Two new agreements (Rhodes Ridge 1972 and McCamey’s Monster 1972).\(^{247}\)
- Changes to the Mount Goldsworthy 1964 Agreement in 1971 to make the processing obligations dependent on the development of Mining area ‘C’.\(^{249}\)
- The transfer of the mining areas from the Nimmingarra 1967 Agreement into the new Goldsworthy Nimmingarra (G-Nim) 1972 Agreement.\(^{250}\)
- The splitting of the Hanwright 1967 and 1968 Agreements mining areas between the Mount Bruce 1972 and Wittenoom 1972 Agreements.\(^{252}\) The processing obligations were taken into the Mount Bruce 1972 Agreement, leaving the Wittenoom 1972 Agreement as the only agreement to have no processing obligations since the Mount Goldsworthy 1962 Agreement.
- The addition of the West Angelas mining areas to the Cleveland Cliffs 1964 Agreement, along with an additional obligation for the establishment of a pellet plant.\(^{253}\)

Rhodes Ridge 1972 Agreement

The Rhodes Ridge 1972 Agreement had a secondary processing obligation to ultimately install the plant required process 6mt/a of iron ore beginning with proposals being submitted after 10 years of exports.\(^{254}\) This was a greater secondary processing obligation than seen in the Hamersley Range 1963 and Mount Newman 1964 Agreements, but there was no steel obligation. The initial thinking was that the agreement would include both secondary processing and steel obligations, closely modelled on these earlier agreements.\(^{255}\) The steel

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\(^{247}\) Agreement scheduled to Iron Ore (Rhodes Ridge) Agreement Authorisation Act, No 36 of 1972.
\(^{248}\) Agreement scheduled to Iron Ore (McCamey’s Monster) Agreement Authorisation Act, No 104 of 1972.
\(^{249}\) Agreement scheduled to Iron Ore (Mount Goldsworthy) Agreement Amendment Act, No 58 of 1971.
\(^{250}\) Agreement scheduled to Iron Ore (Goldsworthy Nimmingarra) Agreement Act, No 30 of 1972.
\(^{251}\) Agreement scheduled to Iron Ore (Mount Bruce) Agreement Act, No 37 of 1972.
\(^{252}\) Agreement scheduled to Iron Ore (Wittenoom) Agreement Act, No 38 of 1972.
\(^{253}\) Agreement scheduled to Iron Ore (Cleveland Cliffs) Agreement Amendment Act, No 68 of 1973.
\(^{254}\) Agreement scheduled to Iron Ore (Rhodes Ridge) Agreement Authorisation Act, No 36 of 1972, section 23.01.
\(^{255}\) DID file 339/71 vol 1, folios 80-89.
obligation was dropped and the secondary processing increased over the course of the negotiations, in response to arguments from the joint venturers.\textsuperscript{256}

The Minister for Development and Decentralisation, Herb Graham, informed cabinet that, while the companies were not required to produce steel, the secondary processing obligation had been increased from 2 to 6mt/a.\textsuperscript{257} He stated that steel production was not favoured because of the nature and size of the orebody and the numerous steel making obligations already existing under other agreements. Graham later commented in parliament that:

\begin{quote}
The joint venturers will accept an increased commitment to secondary processing in lieu of establishing an iron and steel industry... The increased secondary processing obligation is considered a more desirable and practical alternative to steel, and should result in comparable investment and employment while improving the range and marketability of iron ore products from the Pilbara.\textsuperscript{258}
\end{quote}

The area was known to have deposits of high phosphorous brockman iron ores. Graham noted that, if the companies were successful in marketing this ore, it would be of great value to the state as there were known to be large deposits of this type of ore in the Pilbara.\textsuperscript{259}

A provision (similar to provisions in the Hamersley Range 1963\textsuperscript{260} and Mount Newman 1964\textsuperscript{261} Agreements) was included that allowed for the introduction by the state of third parties if the processing obligation was not met.\textsuperscript{262}

\begin{flushright}
\textsuperscript{256} DID file 339/71 vol 1, folio 184 and DID file 339/71 vol 1, folio 204.
\textsuperscript{257} Cabinet submission from Minister, “Iron Ore (Rhodes Ridge) Agreement”, 19 April 1972, DID file 162/72 vol 1.
\textsuperscript{258} Graham, \textit{WAPD}, 2 May 1972, p. 1137. The timing for production of the first 2mt/a was earlier (12 years from first exports) than for the same amount of secondary processing in the Hamersley Range 1963 and Mount Newman 1964 Agreements (16 years). The second 2mt/a was due in 20 years, which is ahead of the first 500,000t/a of pig iron and steel in the other agreements (25 years). The third 2mt/a was due in year 30, which was nearly the same as the timing for ultimate steel requirement of 1mt/a in the other agreements. The result would be earlier secondary processing of the same scale and 4mt/a of secondary processing being considered equivalent and to similar timing as 1mt/a of steel. When the earlier timing for the Rhodes Ridge obligations are considered there is a good argument that they were equivalent to those in the other agreements. This supports his stated views in relation to investment and employment outcomes.
\textsuperscript{259} Ibid, p. 1138.
\textsuperscript{260} Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 24 of 1963, clause 12(3).
\textsuperscript{261} Agreement scheduled to Iron Ore (Mount Newman) Agreement Act, No 75 of 1964, clause 11(3).
\textsuperscript{262} Agreement scheduled to Iron Ore (Rhodes Ridge) Agreement Authorisation Act, No 36 of 1972 section 23.03.
\end{flushright}
McCamey’s Monster 1972 Agreement

The processing obligations in the McCamey’s Monster 1972 Agreement were for secondary processing\(^ {263}\) and steel.\(^ {264}\) These processing clauses (and most other clauses in the agreement) were a copy of the provisions in the Hamersley Range 1963 and Mount Newman 1964 Agreements. The iron ore reserves were said to be large (500mt of high and 1,000mt of lower grade ores) and able to support steelmaking.\(^ {265}\) Of the 500mt of high grade ore in the orebody, there was known to be 100mt of low phosphorus ore.\(^ {266}\)

The agreement cabinet submission made no comment on the processing provisions.\(^ {267}\) A press statement released soon after summarized, without comment, the agreement provisions.\(^ {268}\) However, in a letter to DID during agreement negotiations the project manager protested at having a steelmaking obligation.\(^ {269}\) He argued that there were already two steel obligations under agreements and that a third steel plant did not seem likely and asked for a similar obligation to that in the Rhodes Ridge 1972 Agreement.\(^ {270}\) This request was evidently not successful.

Mount Goldsworthy 1971 Agreement

Cabinet agreed to relieve the Mount Goldsworthy JVs of their obligation to upgrade iron ores found in Mining areas ‘A’ and ‘B’ under the agreement as significant tonnages of ore suitable for upgrading had not been found.\(^ {271}\) Instead the obligation would entirely relate to Mining area C.\(^ {272}\)

The Mount Goldsworthy 1971 Agreement\(^ {273}\) varied the Mount Goldsworthy 1964 Agreement\(^ {274}\) consistent with the cabinet submission. The existing secondary processing

\(^ {263}\) Agreement scheduled to Iron Ore (McCamey’s Monster) Agreement Authorisation Act, No 104 of 1972, clause 33.
\(^ {264}\) Ibid, clause 34.
\(^ {266}\) Court, \textit{WAPD}, 2 November 1972, p. 5132.
\(^ {267}\) Cabinet submission by Graham, Minister for Development and Decentralisation, “Iron Ore (McCamey’s Monster) Agreement”, 18 October 1972, DID file 159/72 vol 1, folios 144-146.
\(^ {268}\) Press statement by Graham, H. E., DD 10/72, DID file 159/72 vol 1, folios 182, 183.
\(^ {270}\) Ibid.
\(^ {271}\) Cabinet minute by May, “Mt Goldsworthy Expansion Proposals and First Variation Agreement”, 12 August 1971, agreed to by cabinet 16 August 1971, DID file 665/70.
\(^ {272}\) Ibid.
\(^ {273}\) Agreement scheduled to Iron Ore (Mount Goldsworthy) Agreement Amendment Act, No 58 of 1971.
obligation was replaced by one that was specific to Mining area ‘C’. A fixed date of the end of 1974 for the submission of secondary processing proposals was included.

The provisions in the 1964 agreement for the introduction of a third party to undertake the processing were replaced with a provision that allowed the state to reallocate Mining area ‘C’ if proposals were not submitted. The existing Mount Goldsworthy 1964 Agreement obligations to upgrade the secondary processed ore were unchanged, although they now attached only to Mining area ‘C’ as the source of the ore.

**Goldsworthy-Nimingarra 1972 Agreement**

The mining areas in the Goldsworthy-Nimingarra (G-Nim) 1972 Agreement were taken from the Nimingarra 1967 Agreement. The small deposits of high grade iron ore in Mining area ‘A’ would be used to expand the existing Mount Goldsworthy operations and did not have processing obligations. Mining area ‘B’ had low grade iron ore deposits that Sentinel Mining had not been able to successfully upgrade to export quality. The processing obligations for MA or ferro manganese that attached to Mining area ‘B’ were not transferred. However mining proposals for Mining area ‘B’ would necessarily include a secondary processing plant because of the quality of the ore.

The Mount Goldsworthy project planned to extend the life of the project and increase its iron ore shipments from 6mt/a to 9mt/a, given that Mining area ‘A’ contained an estimated 40mt of high grade iron ore. The manganiferous ore in Mining area ‘B’ would need some form

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274 Agreement scheduled to Iron Ore (Mount Goldsworthy) Agreement Act, No 97 of 1964.
275 Agreement scheduled to Iron Ore (Mount Goldsworthy) Agreement Amendment Act, No 58 of 1971, clause 3(7). The amount of processing remained unchanged at 2mt/a of iron ore.
276 Ibid, clause 3(7).
277 Ibid, clause 3(7), new clause 12(3).
279 Agreement scheduled to Iron Ore (Mount Goldsworthy) Agreement Act, No 58 of 1971, clauses 3(8) to 3(11).
280 Agreement scheduled to Iron Ore (Goldworthy Nimmingarra) Agreement Act, No 30 of 1972.
282 Renamed Mining area ‘D’ to fit with the naming conventions in the Mount Goldsworthy 1964 Agreement.
283 Renamed Mining area ‘E’ to fit with the naming conventions in the Mount Goldsworthy 1964 Agreement.
of processing before it could be sold.\textsuperscript{287} The form of processing was to be developed by the JVs following investigations and experiments.\textsuperscript{288}

**Mount Bruce 1972 and Wittenoom 1972 Agreements**

The Mount Bruce 1972 Agreement took in part of the areas held under the varied Hanwright 1967 Agreement and was held by the Mount Bruce Mining Company.\textsuperscript{289} H&W took the remaining areas (after some adjustments agreed with the government) into the new Wittenoom 1972 Agreement. This agreement had no processing obligations.

The Mount Bruce agreement included the processing clauses from the Hanwright agreements with only minor modifications.\textsuperscript{290} It also included provisions for the construction of a 3mt/a pellet plant as provided for in the Hanwright agreements, but with specific provisions relating to the expansion of the HI pellet plant as means of satisfying the pellet requirement.\textsuperscript{291} The provision for substituting part of the pellet obligation for an additional MA obligation was also carried over.\textsuperscript{292}

The Mount Bruce 1972 Agreement unusually had no link between approval of proposals for the production of iron ore and the timing for processing obligations. The submission of proposals was at the discretion of HI\textsuperscript{293} unless its ownership of Mount Bruce Mining fell below 51% or the mining areas became owned by another company independent of HI.\textsuperscript{294} Proposals would then be required within 3 years.\textsuperscript{295} However the MA and steel obligation deadlines were fixed dates from the set commencement date of 30 June 1972,\textsuperscript{296} which made the date for the choice of MA or steel 30 June 1978.\textsuperscript{297}

\textsuperscript{287} Ibid, p.1044.  
\textsuperscript{288} Ibid, p. 1044.  
\textsuperscript{289} The company had been set up with 75% HI/25% H&W and held rights to take over the Hanwright 1967 and 1968 Agreements. By this time the company was 100% owned by HI.  
\textsuperscript{290} Agreement scheduled to Iron Ore (Mount Bruce) Agreement Act, No 37 of 1972, clauses 31 to 40.  
\textsuperscript{291} Ibid, clause 8.  
\textsuperscript{292} Ibid, clause 10.  
\textsuperscript{293} Ibid, clause 5(10).  
\textsuperscript{294} Ibid, clause 5(1).  
\textsuperscript{295} Ibid, clause 5(3).  
\textsuperscript{296} Ibid, clause 1.  
\textsuperscript{297} Ibid, clause 31.
An amendment was made to the Hamersley Range 1968 Agreement to continue the suspension of the Hamersley Range 1963 Agreement steelmaking obligations, but now linked to the Mount Bruce 1972 Agreement.298

Cleveland Cliffs 1973 Agreement
The Cleveland Cliffs 1973 Agreement299 brought areas in the central Pilbara (commonly known as the West Angelas mining areas) into the Cleveland Cliffs 1964 Agreement300 and an obligation to establish a 5mt/a pellet plant, with proposals to be submitted by 31 December 1974.301 However this obligation was qualified in that the company had to have pellet contracts and financing in place that were satisfactory to the company; if this was not achieved there was (implied) no obligation to submit proposals.302

Summary and conclusions
The Labor government years brought only two new agreements, both of which were similar in structure, scope and provisions to those of the preceding coalition government. The McCamey’s Monster 1972 Agreement was almost identical to the Hamersley 1963 and Mount Newman 1964 Agreements. The Rhodes Ridge 1972 Agreement did not have a steel obligation, replacing that with 4mt/a of earlier secondary processing. Just why the McCamey’s Monster 1972 Agreement retained steel obligation is not clear as the reasons given for Rhodes Ridge not having a steel obligation could have equally applied. The Minister (Graham) managed to make arguments in parliament favour of the approach taken in each agreement without apparently feeling any need to comment on the difference in the approaches or having to defend the difference.

There were pragmatic changes to some agreements in response to changing circumstances, but no major innovations in how processing obligations were phrased or the conditions applying to the obligations. There seems to have been no consideration given to following the processing provisions in the Mount Bruce 1972 Agreement (which were drawn from the

298 Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 39 of 1972.
300 Ibid, clause 3(1).
301 Ibid, clause 3(2), new clause 7B.
302 This meant that the agreement date was not effective and could not be used by the state in any meaningful way to ‘encourage’ processing. It was really only an earliest date that the state could expect to receive proposals or advice from the company that it did not have contracts or financing in place and would need an extension of time.
Hanwright 1968 Agreement) that allowed for a choice to be made between MA and steel and for the state to have some power to require steel. These were provisions that represented some advance in thinking over the early agreements and could have been expected to be considered. If they were, no papers were found on the department files to suggest this approach was considered for either agreement and the opposition did not raise this approach in parliament.

The changes to the Mount Goldsworthy 1964 Agreement did not change the existing processing obligations, but made them dependent on the development of the Mining area ‘C’ in the central Pilbara. The iron ore deposits known at the time were high phosphorus brockman ores that could not be sold or processed unless blended with low phosphorus ores. This did not suggest that early development was likely.

The shift of the Ningingarra 1967 Agreement mining areas into the Goldsworthy-Nimingarra 1972 Agreement reflected the lack of success that Sentinel Mining had in proving up the iron ore resources required to meet the agreement processing obligations. The specific obligations for MA or ferro manganese production were replaced by a general requirement for secondary processing as part of developing Mining area ‘B’. Mining area ‘B’ (area ‘E’) was surrendered to the state in 1974, again because of resource limitations, and with that the processing obligations relating to the Nimmingarra 1967 Agreement areas ended.303

The processing obligations from the Hanwright agreements were transferred in whole to the Mount Bruce 1972 Agreement, despite the reduced resource base available under the agreement. There was a twist in that the new agreement did not have a submission date for mining proposals but the processing obligations had specific dates for submissions of proposals and the meeting of the processing capacity obligations. This meant that the situation could exist where mining was not taking place under the agreement yet there were processing obligations due that would have been expected to use ore from those areas.304

304 The Mount Bruce 1972 Agreement is silent on how this would work. A solution was not put forward in the second reading speeches and the issue was not raised by any member. One possibility is that HI would use ores being produced under other HI agreements but this would have been simple to provide for in the agreement, yet it was not. As will be seen in Chapter 7 the issue never arose as the obligations were extended and then met without any mining taking place at the Mount Bruce areas. The ores used were from other HI operations and this was never challenged as possibly not meeting the agreement requirements.
The addition of more iron ore resources to the Cleveland Cliffs 1964 Agreement through the 1973 Agreement brought an expanded pellet plant obligation. However the company was not required to submit proposals and would not lose the iron ore resources if it did not. This meant that the timing of the obligation was entirely in its hands despite the apparently specific timing in the agreement.

The processing obligations and timings in agreements ratified during the period of the Tonkin Labor government are summarised in the table below.

Table 3.4   Tonkin Labor government agreement obligations and timing

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Obligation</th>
<th>Timing</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2mt/a capacity</td>
<td>1993</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4mt/a capacity</td>
<td>2002</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6mt/a capacity</td>
<td>2011</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.5mt/a</td>
<td>1993</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1mt/a</td>
<td>1994</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2mt/a</td>
<td>1997</td>
<td></td>
</tr>
<tr>
<td></td>
<td>steel Proposals</td>
<td>2001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.25mt/a</td>
<td>2006</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.5mt/a</td>
<td>2010</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1.0mt/a</td>
<td>2012</td>
<td></td>
</tr>
<tr>
<td>Mount Goldsworthy 1971</td>
<td>secondary processing Proposals</td>
<td>1974</td>
<td>Apply to Mining area ‘C’ only. Specific dates set in agreement.</td>
</tr>
<tr>
<td></td>
<td>0.5mt/a</td>
<td>1976</td>
<td>Dates for upgrading set by export date under Mount Goldsworthy 1964 Agreement (1966). Requires secondary processing obligation to be satisfied so that material is available to upgrade.</td>
</tr>
<tr>
<td></td>
<td>…1mt/a</td>
<td>1978</td>
<td></td>
</tr>
<tr>
<td></td>
<td>…2mt/a</td>
<td>1982</td>
<td></td>
</tr>
<tr>
<td></td>
<td>upgrading secondary processed ore</td>
<td>1983</td>
<td></td>
</tr>
<tr>
<td></td>
<td>…Proposals</td>
<td>1984</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.25mt/a</td>
<td>1987</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.5mt/a</td>
<td>1991</td>
<td></td>
</tr>
<tr>
<td></td>
<td>…1mt/a</td>
<td>1991</td>
<td></td>
</tr>
<tr>
<td>Location</td>
<td>Pellet or Steel Choice</td>
<td>Proposals</td>
<td>Commencement Date</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------------</td>
<td>----------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1mt/a capacity</td>
<td>1978</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3mt/a capacity</td>
<td>1981</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OR</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>pellets and MA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>…0.5mt/a pellets</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>MA Proposals</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1mt/a capacity</td>
<td>1976</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1978</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1980</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OR</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>MA or steel choice</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>or steel direction by Minister</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Notice selecting MA or steel.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>If MA <strong>Proposals</strong></td>
<td>1978</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1mt/a capacity</td>
<td>1978</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2mt/a capacity</td>
<td>1980</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3mt/a capacity</td>
<td>1982</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If steel <strong>Proposals</strong></td>
<td>1984</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.5mt/a capacity</td>
<td>1989</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1mt/a capacity</td>
<td>1994</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1999</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cleveland Cliffs 1973</td>
<td>pellets</td>
<td><strong>Proposals</strong></td>
<td>1974</td>
</tr>
</tbody>
</table>
Part 4

Summary of agreements and processing obligations in place in 1974

In calendar year 1974 the Pilbara iron ore industry exported around 77 million tons (mt) of iron ore from the four operating projects (Mount Newman 26.5mt, Hamersley Iron 32mt, Cleveland Cliffs 11mt and Mount Goldsworthy 8mt, including 4mt of pellets by Cliffs and 1.6mt by Hamersley Iron (all numbers rounded). Mount Newman also sent 4mt to the BHP east coast steelworks.

Given first exports were in 1966, this is an average increase of 10 million tons per year. Five mines were established (Mount Tom Price, Paraburdoo, Mount Whaleback, Mount Goldsworthy and Pannawonica), four railways (Paraburdoo to Mount Tom Price to Dampier, Mount Whaleback to Port Hedland, Pannawonica to Cape Lambert and Mount Goldsworthy to Port Hedland) and three ports (Dampier, Cape Lambert and Port Hedland). Two pellet plants had also been built (Dampier and Cape Lambert) and were in full operation.

The situation in 1974 in relation to processing obligations is summarized in the table below. The important dates in the table are those for the submission of proposals. Either the company did that or the agreement parties needed to negotiate a way forward (usually, but not always, by extending the date in preference to other actions available under the agreement).

### Table 3.5 Processing obligations and due dates in 1974

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Obligation</th>
<th>Due dates</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamersley Range 1963</td>
<td>secondary processing Proposals</td>
<td>1976(^{307})</td>
<td>Pellet plant established in 1968 met secondary processing obligation.(^{308})</td>
</tr>
<tr>
<td></td>
<td>0.5mt/a capacity</td>
<td>1978</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2mt/a capacity</td>
<td>1982</td>
<td></td>
</tr>
<tr>
<td></td>
<td>steel Proposals</td>
<td>suspended</td>
<td>Steel obligation suspended and would only revive (with proposals due in 1990) if company was required to choose steel under Mount Bruce 1972 Agreement, did not</td>
</tr>
<tr>
<td></td>
<td>0.25mt/a capacity</td>
<td>suspended</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.5mt/a capacity</td>
<td>suspended</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1mt/a capacity</td>
<td>suspended</td>
<td></td>
</tr>
</tbody>
</table>

\(^{305}\) Western Australian Department of Mines Annual Report 1974, page 26.  
\(^{307}\) Dates set by the commencement of exports in 1966 under the Hamersley Range 1963 Agreement.  
\(^{308}\)See Chapter 7 Part 1.
<table>
<thead>
<tr>
<th></th>
<th>MA Proposals</th>
<th>1975</th>
<th>Mining lease for Paraburdoon granted in 1970. This set proposals date as 1972. All dates extended by three years in 1973.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hamersley Range 1968</strong></td>
<td>1mt/a</td>
<td>1977</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2mt/a</td>
<td>1982</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3mt/a</td>
<td>1985</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>submit proposals and Minister gave notice that would revive obligation.</strong></td>
</tr>
<tr>
<td><strong>Mount Newman 1964</strong></td>
<td>secondary processing ...Proposals</td>
<td>1979</td>
<td>Proposals dates yet to be reached.</td>
</tr>
<tr>
<td></td>
<td>0.5mt/a</td>
<td>1981</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2mt/a</td>
<td>1985</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>steel Proposals</td>
<td>1989</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.25mt/a</td>
<td>1994</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.5mt/a</td>
<td>1998</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 mt/a</td>
<td>2000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1mt/a</td>
<td>1978</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3mt/a</td>
<td>1981</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OR pellets and MA ...Proposals (MA)</td>
<td>1978</td>
<td>If either pellet plant capacity or HI pellet plant expansion is 0.5mt/a, MA can be substituted for rest of pellet obligation.</td>
</tr>
<tr>
<td></td>
<td>0.5mt/a pellets</td>
<td>1976</td>
<td></td>
</tr>
<tr>
<td></td>
<td>...Proposals (MA)</td>
<td>1978</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1mt/a MA</td>
<td>1980</td>
<td></td>
</tr>
<tr>
<td><strong>Mount Bruce 1972. MA or steel by company choice or steel on direction by Minister</strong></td>
<td>Notice selecting MA or steel.</td>
<td>1978</td>
<td>Commencement date 30 June 1972. Sets agreement dates.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MA chosen Proposals</td>
<td>1978</td>
<td>If Minister accepts MA choice, steel obligation under Hamersley Range 1963 Agreement is effectively extinguished. If Minister accepts steel choice or requires steel instead of MA and company submits proposals for steel, the steel obligation under Hamersley Range 1963 Agreement is effectively extinguished.</td>
</tr>
<tr>
<td></td>
<td>1mt/a</td>
<td>1980</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2mt/a</td>
<td>1982</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3mt/a</td>
<td>1984</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OR Steel chosen or Minister requires steel Proposals</td>
<td>1989</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.25mt/a</td>
<td>1994</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.5mt/a</td>
<td>1998</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1mt/a</td>
<td>2000</td>
<td></td>
</tr>
</tbody>
</table>

309 See Chapter 3 Part 3.
310 See Chapter 7 Part 2.
311 Dates set by commencement of exports in 1969 under the Mount Newman 1964 Agreement.
312 Can also expand HI pellet plant by 3mt/a as an alternative.
<table>
<thead>
<tr>
<th>Location</th>
<th>Secondary Processing Proposals</th>
<th>Specific Date for Proposals Set</th>
<th>Dates for Upgrading Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goldsworthy-Nimingarra 1972</td>
<td>Proposals: 0.25mt/a, 0.5mt/a, ...</td>
<td>Not required in 1977</td>
<td>Area E surrendered in 1974. Obligation for secondary processing proposals in 1977 disappeared with surrender. 315</td>
</tr>
<tr>
<td>Cleveland Cliffs 1973</td>
<td>Proposals: pellets</td>
<td>1974 (only required if precondition met)</td>
<td>Proposals for 5mt/a of pellets required only if company had contracts for sale of pellets. No timing for construction to commence or for capacity to be in place. 316</td>
</tr>
</tbody>
</table>

313 Assumption in agreement is that Mining area ‘C’ ores will have to be pelletised to be sold. This means that pellet plant is integral to mining proposals. Obligation is therefore more like those in Cleveland Cliffs 1964 Agreement where mining was dependent on contracts for processed ore rather than processing being something that followed from a period of shipping of ores that could be sold without processing beyond crushing and screening.

314 This requires secondary processing obligation to be satisfied, which would mean that material is available to be upgraded. So if the Mining area ‘C’ development was delayed then dates would inevitably be extended.

315 See Chapter 3 Part 3.

316 Ibid.

317 Set by 5 years from commencement date of Rhodes Ridge 1972 Agreement, which was the execution date of the agreement (16 June 1972).

318 Set by 5 years from commencement date of McCamey’s Monster 1972 Agreement, which was the execution date of the agreement (6 December 1972).
The table shows that, at the time of the change of government in early 1974, the Mount Newman 1964, Mount Goldsworthy 1964, Hamersley Range 1968 and Mount Bruce 1972 Agreements had secondary processing or MA proposals due during the rest of the 1970s. No steelmaking obligations were due in this period. One processing obligation had been met; pelletising under the Hamersley Range 1963 Agreement. This was met 14 years ahead of time.

Steelmaking proposals under the Mount Newman 1964 Agreement were not due until 1989. Those under the Hamersley Range 1963 Agreement would have been due in 1986, but were suspended. The earliest they could revive was 1990 and then only if the MA or steel obligations in the Mount Bruce 1972 Agreement were not met. The belief in government was that MA would be the processing done under that agreement, which would effectively meet the Hamersley Range 1963 Agreement steel obligation. There was little expectation on either side that steel would be chosen, or required, under the Mount Bruce 1972 Agreement.

The earliest proposals dates for the Rhodes Ridge 1972 and McCamey’s Monster 1972 Agreements were so far off (1991 and beyond) as to not be relevant, particularly as they required mining proposals to be submitted and iron ore exports to take place in order for the dates to become fixed.

The Mount Goldsworthy 1964 and 1971 and Cleveland Cliffs 1973 Agreements processing obligations are not directly relevant to this thesis. While processing under the Cleveland Cliffs 1973 Agreement will not be considered further in this thesis, the Mount Goldsworthy processing was extinguished as part of an arrangement with BHP that saw BHP establish a DRI (MA) plant at Port Hedland and this is discussed later in this thesis (see Chapter 6 part 3).

There were now some interesting decision points through the rest of the 1970s for both the state (Minister) and the agreement companies as secondary processing and MA obligations would fall due. The 1970s also saw the oil shocks and they could have been expected to impact on these decision points and then spill over into the steelmaking decision points in the 1980s.
Chapter 4

Processing obligations in the post 1973 oil shock world (1974 to 1990)

Part 1

Prospects for processing in the Pilbara

Introduction

The last chapter ended with the iron ore export industry well established, having experienced strong growth to 1974, with obligations for secondary processing and MA that would fall due in the 1970s and for steel in the 1980s. There were also strong prospects that other producers would enter the growing industry which would bring more obligations to be met in the future. For these obligations to be met as they came due there had to be a market for the product and production had to be economic. The second of these factors was the more important as the obligations were agreed, not coercive, obligations. The state had recognized that meant that processing was not an assured outcome\(^{319}\) and in order for the private companies to make the required investments the processing had to be economic.\(^{320}\)

The most public review of processing economics in the Pilbara, as seen before the first oil shock (1973), was in the Pilbara Study (the Study),\(^{321}\) a joint WA/Commonwealth government initiative to examine the report “The Pilbara-A Development Concept” that had been released by the WA government.\(^{322}\) The Concept proposed a major industrial development in the Pilbara that included iron ore and natural gas processing and required significant investment in infrastructure by both governments. The Study commenced in May 1973 with the objective of examining the economic viability of major industrial development in the Pilbara and reported in July 1974.\(^{323}\) While the impacts of first oil shock were being felt by then on commodity prices and construction costs, the Study considered market forecasts and costs applying before then. The outcomes from the Study meant that the state government had a clear and relatively independent view of the economics of processing, the


\(^{322}\) Department of Development and Decentralisation, *The Pilbara, A Development Concept for the 1970’s*, Department of Development and Decentralisation, Government of Western Australia, 1972.

cost problems facing the Pilbara and the market outlook for processed products prior to the impacts of the oil shock.

Pilbara Study outcomes and implications

Iron ore processing economics

The Study investigated the economics of producing pellets, sinter, MA and steel (conventional and electric arc) production in the Pilbara.

For pellets the Study concluded that a 3mt/a plant would not be viable as costs exceeded revenue. Pellet prices needed to increase by around 50% \(^{324}\) or the price of iron ore fines needed to be 78% lower to provide a real IRR of 10%. \(^{325}\) Even if capital costs were reduced by 20% to match Perth capital costs, the costs still exceeded revenues. \(^{326}\)

For sinter the Study concluded that costs exceeded revenue for a 3mt/a plant. Prices would need to increase by 108% or the fines price would need to decrease by 81% to provide a real IRR of 10%. \(^{327}\) Again a reduction in capital costs to match Perth costs still saw costs exceed revenue. \(^{328}\)

The Study considered two MA processes, both of which were gas based: Midrex (500 000t/a capacity) and FIOR (1.5mt/a capacity). The Midrex plant required pellet feed; the FIOR, fines. A coal based process was not considered because of known technical and economic problems. \(^{329}\) Both processes were found to be highly profitable (37\(^{330}\) and 39% IRR respectively) at expected fine ore and pellet prices used for the calculations of the economics of the pellet plant and the profitability was judged to be; ‘…relatively insensitive to the price

\(^{324}\) IRR is the acronym for ‘internal rate of return’. The IRR is the discount rate that, when applied to the costs and revenues over time, gives a zero result ie discounted costs balance discounted revenues. The Study used 10% IRR as the measure of the economic viability of a project.


\(^{326}\) Ibid, Appendix 3, p. 346.

\(^{327}\) Ibid, Section 4, p. 64.

\(^{328}\) Ibid, Appendix 3, p. 312.


\(^{330}\) The return for the Midrex plant was overestimated in the Study as it was assumed that pellets would be supplied at a price that gave a negative return to the pellet plant. If a pellet price that gave a 10% IRR for the pellet plant was used, the IRR for the Midrex process was calculated from the figures in the Study (at Appendix 3, page 325) to fall to 32.5%, still a robust return.
of natural gas’. A reduction in product price of 17% reduced the IRR to 27.5% and 29%, which was taken to mean that both processes were economically robust. Perth capital prices increased the IRR by 6.5% for both processes.

For conventional steel (BF/BOF), a 10mt/a plant exporting all production was considered. The plant would return between 5 and 6.5% IRR and this would rise to 7.5 and 9.0% using Perth capital costs. If the product price was increased by 12.5%, the Pilbara plant’s IRR would improve to 8.5 and 10%. Alternatively if it was reduced by 12.5% the IRR would fall to 1.5 and 3%.

A 0.5mt/a EAF steel plant was considered that used Midrex MA as feedstock. The IRR was 7% for an integrated Midrex/EAF operation supplied with pellets purchased from the uneconomic plant considered by the Study. If the input pellet price was increased to the required price for the plant to return a 10% IRR, the integrated IRR would be reduced to 3% to 4%. Given MA produced from a Midrex plant had much higher IRR in both cases, the production of EAF steel destroyed value by reducing the IRR, while requiring increased capital, compared to simply selling Pilbara MA to an overseas EAF steelmaker. The return was improved to 13% if Perth prices were used and a higher product price was assumed (but with the same low pellet price), but this return was still well below the expected return from MA production alone.

Market considerations for iron ore processing products

The Study commented that demand for pellets was rising, but also noted that producers expected price increases as pellet prices were too low to encourage expansion of production.

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334 Ibid, Section 4, p. 68.
335 Ibid, Section 4, p. 70.
336 Considered to be feasible by the Study; see Ibid, Section 4, p. 71.
337 Ibid, Section 4, p. 71.
338 Ibid, Section 4, p. 67.
339 Estimated from the figures given in Ibid, Appendix 3, p. 333.
341 Ibid, Appendix 3, p. 300.
The Study recognized that sinter was difficult to transport which meant most was produced at steelworks for immediate use.\textsuperscript{342} Hence there was little trade in sinter. Production of sinter in the Pilbara would require the import of coke breeze which would have an adverse effect on economics.\textsuperscript{343}

The Study noted that relatively little MA was traded which made market assessment difficult. The potential for MA to compete with scrap in EAF steelmaking was considered and a case made for the benefits to the steelmaker of the cost stability of MA compared to the volatile price of scrap.\textsuperscript{344}

The Study did not specifically consider the market for steel produced by the BF/BOF route; instead it considered the whole steel market, which included EAF steel production.\textsuperscript{345} At the time (1973) EAF steel (the market for MA) output world-wide was 80mt\textsuperscript{346} compared to total steel production of 700mt\textsuperscript{347}. The total steel market was projected to grow at up to 4.5\% per year to 1985 and reach 1 200mt.\textsuperscript{348} The Study favoured a production estimate for the year 2000 of 2 300mt, while giving a range of 2 000 (low) to 2 920 (high).\textsuperscript{349} Even the low figure implied a yearly average increase in capacity of 48Mt/a from 1973 to 2000. Assuming the EAF share remained at 11.5 \%, EAF capacity would increase by 5.5mt/a. This would see the BF/BOF increase to be around 43mt/a. The annual increase in EAF capacity was a potential market for the production from 11 new Midrex plants each year.

**Assessment of Pilbara Study findings**

The Study found that the economics of pellet, sinter and EAF steel production in the Pilbara were not encouraging. This was mostly because the high capital costs outweighed any advantage gained from being close to the iron ore. Conventional steel had some potential to be economic, but the standout prospect was MA production.

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\textsuperscript{342} Ibid, Appendix 3, p. 308.
\textsuperscript{343} Ibid, Appendix 3, p. 308.
\textsuperscript{344} Ibid, Appendix 3, p. 316.
\textsuperscript{345} Ibid, Appendix 4, pp. 49-60.
\textsuperscript{346} Western Australian Steel Study Taskforce, *Steel Study Report*, June 1992, Government of Western Australia, Figure 1.9 on p. 1-21.
\textsuperscript{349} Ibid, Section 2, p. 10.
Given that the Study found that MA returns were very good and robust, it is not surprising that there was strong interest from the government in the prospects for gas based MA in the Pilbara. The future demand based on supply to EAF would also have suggested that a Pilbara MA plant would find a market for its product.

The Study considered the possible growth in iron ore demand to the year 2000. A median estimate of 3 000mt was arrived at and, assuming that the Pilbara could supply 10% of the demand (already 8% and growing in 1973), Pilbara iron ore production was estimated to reach 300mt/a. These increases in demand (8.5mt/a each year) meant that existing producers could be expected to expand, which would be expected to provide the cash for investment in processing. Also there would be room for new producers to commence production and that would mean that their processing obligations would be triggered.

All of this would have given rise to a feeling of confidence in the prospects for increased iron ore exports and for processing, particularly for gas based MA. Conventional steel production would also have been regarded as possible based on the reasonable economics and the strong market growth that would allow more marginal producers to enter the market. Also, if pellet prices improved, then pellets had some prospects for success (most likely initially through expansions of existing capacity as they would be the cheapest way to increase production). Sinter and EAF production did not look at all possible in the Pilbara.

As will become clear in the discussion below the world after the 1973 oil shock had a much lower demand for steel (and different regional production patterns) and iron ore than expected by the Study. This made the prospects for processing in the Pilbara more difficult than the Study findings indicated. Also the much slower growth in iron ore exports and stagnant prices meant that the existing projects would not generate the cash flows to underpin processing investment and new projects would be hard to establish.

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350 Ibid, Section 2, p. 11.
Market developments post Pilbara Study to 2000

Comparing Study projected steel production in the year 2000 with actual production and assessing the implications for steelmaking in the Pilbara

When the state agreements were negotiated in the 1960s and early 1970s the bulk of steel production outside of the eastern (communist) bloc was in the USA, Western Europe and Japan. Steel production in 1958 outside of the eastern bloc was 184mt with 85% from the USA (75mt), Western Europe (69mt) and Japan (11.5mt). By 1963 that production had increased to 260mt, with 87% from USA (96mt), Western Europe (100mt) and Japan (31mt). The market was growing, as evidenced by the increase in production from 1958 to 1963 of 76mt. It was initially thought that Pilbara steel production would be for the local market but that view changed to one in which a Pilbara plant would provide semi-finished steel that would be processed into finished products in the northern hemisphere. This was logical as those producers both dominated production and were growing themselves. By 1973 the situation had not changed with steel production outside the eastern bloc reaching 490mt, which was an increase of 230mt in ten years, with 88% of the total produced by USA (137mt), Western Europe (174mt) and Japan (119mt).

World steel production in the year 2000 was close to 850mt, well short of the Pilbara Study’s median projection of 2 300 mt and even the low projection of 2 000 mt. The increase was only 150mt from the world production of 700mt in 1973. The non eastern bloc production was 591mt, an increase of around 100mt, but the share by the USA, Western Europe and Japan had fallen significantly to 63% as their production had actually fallen from 430mt to 371mt (USA 102mt, Western Europe 163mt and Japan 106mt).

So not only did production fall well short of the Study’s expectations, the production in the countries expected to provide the market for a Pilbara plant fell significantly. This was

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further compounded by the growth in world EAF steel production from 80mt (11.5%)\textsuperscript{359} to 288mt (34%),\textsuperscript{360} some 208mt, which was greater than the overall increase of 150mt. This meant that world conventional steel production growth was negative 58mt over period from 1973 to 2000. Almost all of this decrease (57mt) was from USA (then 54mt), Western Europe (then 98mt) and Japan (then 76mt) which meant that other markets for Pilbara semi-finished steel had not grown in the period either. There was growth in EAF production but this would require scrap and MA as inputs, not semi-finished steel products.

This analysis shows that from 1973 to 2000 (at least) the Pilbara would struggle to see the establishment of a conventional steel mill based on export markets. Over the same period steel production in Australia contracted slightly from around 8mt/a to 7mt/a,\textsuperscript{361} which ruled out a steelmaking plant in the Pilbara aimed at the domestic market.

If the expected growth in steel and iron ore demand that was projected in 1973, or even something approximating that growth, had been realised there would have been many opportunities for Pilbara processing. Also the iron ore producers would have enjoyed strong cash flows that could have funded processing. The reality was very different and the assumption that semi-finished steel production in the Pilbara would be encouraged, supported or underpinned by northern hemisphere steelmakers was not met. So steelmaking in the Pilbara faced a double problem; the economics were not good (as shown in the Pilbara Study) and the hoped for market did not develop. With these two major impediments it is hardly surprising that steelmaking did not eventuate in the Pilbara in the period post the Study to 2000.

The situation for the Pilbara has not improved since 2000. World conventional steel production\textsuperscript{362} increased to 935mt in 2007, a growth of 85mt from 2000, but US production declined another 13mt to 41mt, Japan increased by around 13mt to 89mt (EAF production had stagnated at 30mt) and Western Europe declined 3mt to 95mt.\textsuperscript{363}

\textsuperscript{362} Total steel production less steel produced by EAF.
Since then there has been the Global Financial Crisis of 2008 and its world economic aftermath which has not made things any easier. In 2012 US production was 36mt, Japan 82mt and Western Europe 73mt; meaning production from the three had dropped by 34mt compared to 2007\(^{364}\) and was back to the same production as in 2000. Australian conventional steel production had also fallen to 3.8mt in 2012\(^{365}\) compared to 8mt in 1973.

While the expected northern hemisphere markets did not materialize, a Pilbara plant could have gone it alone but this would have required the Pilbara producers of iron ore to use their iron ore export cash flows as the basis for funding steel production for export. Unfortunately for this possibility, the level of Pilbara iron ore production (export plus domestic sales) was basically stagnant from 1974 to 1987, averaging 84mt/a.\(^{366}\) The price received by the producers in Australian dollars rose over the period from $7.04 to $21.54\(^{367}\) but this was a slower rate of increase than the CPI, which would have seen prices rise to $24.50.\(^{368}\) This meant that revenue in real terms for the producers in 1987 was less than in 1974, which was not a situation that would have encouraged investment in processing. Growth resumed from 1987 to reach 160mt by 2000,\(^{369}\) which even so was only half that projected in the Study (300mt). By 2000 prices had risen to $28.14,\(^{370}\) but the CPI’s\(^{371}\) matching price would have been $38.03. This meant that increases in production costs (which would relate to CPI) were rising faster than revenues (set by factors other than CPI) and that margins were being squeezed. Overall producer’s cash flows would be falling despite the doubling in iron ore production from 1987.

It would be expected that from 1974 to 2000 (and particularly from 1987), the existing Pilbara iron ore producers would be focused on cost reductions and efficiency gains to protect their margins and cash flows. Also new producers would find it hard to enter the industry.

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\(^{365}\) Ibid.
\(^{368}\) Ibid, p. 9.
\(^{371}\) Ibid, p. 9.
This is shown by the fact that no agreement projects that were not in production in 1974 managed to come into production until McCamey’s Monster began production in 1988.\textsuperscript{372}

In this environment consolidation of the existing producers would be a probable outcome as that was a way to reduce unit costs and increase or protect margins. In 1974 there were four producing companies. By 1984 BHP had taken control of the Mount Goldsworthy project,\textsuperscript{373} leaving three producing companies and no new entrants. By 2000 Rio Tinto (owner of the Hamersley Iron project) had taken control of the Robe River project\textsuperscript{374} leaving two producers and still no new entrants. The first major new entrant in the Pilbara since the commencement of the Robe River project in 1974 was Fortescue Metals, with a new mining agreement in 2006\textsuperscript{375} and first production in May 2008.\textsuperscript{376}

Considering the potential for MA production emerging in the Pilbara between 1973 and 2000

The main market for MA was as feed to an EAF. The usual feed was scrap and MA had to be a competitive source of iron units for an EAF. There also had to be a market developed for MA as it was a ‘new’ feed and existing EAFs based on all scrap feed would be reluctant to take MA; the main MA market would be in new EAF projects where MA would be part of the feed from the start. In 1973 80mt of EAF steel was produced\textsuperscript{377} and this rose to 288mt in 2000,\textsuperscript{378} an increase of 208mt. This was an average increase of 7.7mt/a, although the market available to MA would depend on the steelmaker’s choice between 100% scrap and taking some proportion of MA. If an average feed of 20% MA was able to be achieved, then the market for MA could have grown from essentially zero in 1974 to around 40mt/a by 2000.

In 1974 the gas based MA processes were in their infancy with only the Midrex and HYL processes operating at more than pilot scale and a total of 2.7mt being produced in that year.\textsuperscript{379} The only coal based process that was operating was the SL/RN plant in Canada and

\textsuperscript{372} Western Australian Department of Mines, \textit{Statistical Digest of Mineral and Petroleum Production 1988-89}, p. 16.
\textsuperscript{373} Western Australian Department of Mines, Annual Report 1984/85, p. 11.
\textsuperscript{375} Agreement scheduled to Iron Ore (FMG Chichester Pty Ltd) Agreement Act, No 44 of 2006.
\textsuperscript{376} Western Australian Department of Mines and Petroleum, \textit{Western Australian Mineral and Petroleum Statistics Digest 2007-08}, p. 17.
that was producing 0.1mt. In 2000 production had reached 44mt, with Midrex the dominant process at 30mt (68%). This shows growth of around 40mt, suggesting that the 20% figure above had been achieved. Using the Midrex capacity of 0.5mt/a from the Pilbara Study, this means that the equivalent of 80 Midrex plants had been built over the 26 year period, or 3 per year. This would indicate that there was a market that could allow Pilbara MA plants to be built over that period, in contrast to conventional steel where the market was not available.

The main producing countries in 2000 were Venezuela (15%) Mexico (13%), India (12.5%), Iran (10%), Saudi Arabia (7%) and Egypt (5%) making up 62.5% of production, with smaller (1-2mt) production in nine other countries. It is striking that of these fifteen countries only three could be considered developed economies (USA, Canada and South Africa) and they accounted for only 4.2mt (10%) of production. The plants in the other countries were government owned and largely producing for domestic production of EAF steel. The amount of MA traded by sea in 2000 was around 7 mt or only 15% of production, which was not encouraging for a large scale Pilbara based export MA plant. The volume traded through to 2009 averaged 7mt/a and the percentage of production fell to 8.5% to further underline this point.

The conclusion from this analysis is that the opportunity from 1974 to 2000 for a stand-alone Pilbara MA plant was limited. MA production was mainly in countries wanting the product to feed domestic EAF steelmaking to meet local needs. The amount entering the export market was small and could be expected to mainly be excess product, marginally priced, that would be difficult for a standalone plant based on exporting all of its production to be competitive with.

Considering the potential for pellet and sinter production in the Pilbara
The analysis above showed that conventional steel production was stagnant in total through to 2000 and had contracted heavily in the main markets that were expected to underpin a Pilbara steel industry. As this was the same market for Pilbara iron ore and pellets, the

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380 Ibid.
383 Ibid, pp. 4, 8.
384 Ibid, pp. 4, 8.
market prospects for new pellet production in the Pilbara were not good. With no market prospects and poor economics it is hard to see any serious prospect for large scale pellet production in the Pilbara.

The Japanese market was the customer for the Hamersley Iron and Cleveland Cliffs pellet plants and could have been expected to be interested in pellets from the Pilbara. However both plants were closed by 1980.\(^{385}\) In the period from 1966 (first exports from HI) there was a period of rapid growth in Japanese pellet imports (3.4mt in 1966, rising to 10.6mt in 1969).\(^{386}\) Apart from some upward fluctuations in 1978 to 1980, imports remained around 10mt/a until 1985 and then declined to be around 4mt in 1999.\(^{387}\) This shows that the Japan was not a market for Pilbara pellets from 1980 and even suppliers who were in that market were faced with a static, then shrinking demand for their product.

There was a possible market in pellet production for the supply of pellets to MA processes, but this required a high Fe content pellet (70%).\(^{388}\) The pellets from the two Pilbara plants were not suitable for use in MA plants because of their relatively low Fe content (62-63%).\(^{389}\) This meant that the growth in the MA production elsewhere as mentioned above was not a market for Pilbara pellets and even Pilbara MA plants would have wanted high Fe pellets, requiring upgrading of the iron content of the Pilbara as mined ores.

It could have been possible to market pellets as an alternative to expanded sinter production at steelworks. If this market had existed, but was taken by other pellet production, this would have shown up in decreased production of sinter. Western world sinter production was around 300mt in 1977 and remained at approximately this number in 1994.\(^{390}\) While not conclusive, this strongly suggests that there had been little to no substitution of pellets for sinter. So this market did not exist for Pilbara pellet production. It also suggested there was

\(^{388}\) Arthur D, Little, Inc., The Market Outlook for Pilbara Iron Ore Pellets, Report to Department of Resources Development, State of Western Australia, January 1983, p.34.
\(^{389}\) Ibid, p. 34.
no market for sinter exports from the Pilbara, particularly as production fell by 24 mt in Japan, 19mt in USA and 35 Mt in Western Europe over the same period.\(^{391}\)

With little market encouragement and poor economics, it is hardly surprising that no pellet or sinter plants were established in the Pilbara post 1974.

**Conclusion**

Had the expectations in the Pilbara Study for steel and iron ore production through to the year 2000 been realized, there would have been strong possibilities for conventional steel production in the Pilbara, despite the only marginal returns found by the Study. Also the large growth in iron ore production would have provided the cash flow to underpin investment in processing by the Pilbara producers.

However, the stagnation in conventional steel production, compounded by the contraction in production by the northern steelmakers who were expected to provide the market for semi-finished steel from the Pilbara, told against the prospects for production in the Pilbara. Also the combination of stagnant iron ore production for much of the time, coupled with prices that fell in real terms, meant that the industry was in survival mode for most of the time and this lead to consolidation of production effectively into the hands of two companies, Hamersley Iron (Rio Tinto) and BHP.

There was growth in EAF steel production over the period, but the Pilbara economics were shown by the Study to be poor and required MA (and high grade pellet) production in the Pilbara as part of an integrated process.

The Study found that pellet and sinter production were not economic in the Pilbara. Whether strong growth in the customer conventional steel plants would have pushed up prices far enough for that production to become economic cannot be known. In the end the market dictated that the chances of establishing export plants for pellets or sinter were low as conventional steel production stagnated, which meant there was no market for new pellet or sinter production from the Pilbara.

\(^{391}\) Ibid.
The Study found that MA production was by far the most attractive proposition and interest from government in that form of processing has remained high as evidenced by the continued reference to MA production in Agreement obligations and the efforts of both Hamersley Iron (through HIsmelt) and BHP (through HBI) to meet processing obligations through MA production. But the discussion above showed that the amount of MA being traded remained small through to 2000 and the merchant MA market was difficult for a Pilbara plant to be competitive in.
Part 2

Changes to agreements processing obligations

1976 Variations to Hamersley Range 1968 and Mount Bruce 1972 Agreements

Minister Mensaros received Cabinet approval in October 1976 to variations to the Hamersley Range 1968 and Mount Bruce 1972 Agreements. In the minute he referred to the problems in the development of MA technology that had seen the company propose a restructure to the processing obligations under the agreements.

The Hamersley Range 1968 Agreement was formally varied in 1976 consistent with the Cabinet approval. This variation inserted provisions into the agreement for the establishment of a plant to produce 6.5mt/a of iron ore concentrates, with proposals due by 31 December 1976. The variation also deferred the date for the submission of proposals for the first mt/a of MA by eight years (from 1972 to 1980), the second by 6 years (from 1977 to 1983) and removed the requirement for a third by not making any provision for this extra capacity.

The submission of proposals for the concentrate plant suspended the operation of the clauses in the Mount Bruce 1972 Agreement that provided for the establishment of

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392 Cabinet submission from Mensaros, 30 September 1976, approved 4 October 1976, DID file 228/76 vol 1, folios 160-162.
393 The variations would provide for the establishment of a plant that would meet the obligation in the Mount Bruce 1972 Agreement to establish a concentrates plant two years ahead of time (1979 cf 1981). The dates for proposals for the first 1mt/a of MA under the Hamersley Range 1968 Agreement would be extended by eight years to 1980 (made up of four years of granted extensions plus four years for the concentrator plant) and the requirement to establish the third 1mt/a of MA capacity would be removed. The provisions would also extend the date under the Mount Bruce 1972 Agreement for the choice to be made between MA and steel by at least five years to 1983. The MA proposal and production dates would also all be extended by at least five years, while the steel dates would remain unchanged with proposals due in 1989.
395 See Chapter 7 Part 2 for a review of the negotiation process leading up to the cabinet submission. At the close of those negotiations it was agreed that the obligation for the first 1mt/a of MA capacity under the Hamersley Range 1968 Agreement would be waived as part of a package of agreement changes. The cabinet minute took a different approach by extending the time for meeting the first 1mt/a of MA and waiving the third 1mt/a. In practice these were practically equivalent approaches.
396 Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 93 of 1976.
397 Ibid, clause 4(1).
398 Ibid, clause 4(2).
an iron ore concentrates plant (clause 8) and for the substitution of 1mt/a of MA for 2.5mt/a of concentrates (clause 10).399 The completion of construction of that plant would extinguish the obligations under the clauses.400

The fixed dates under the Mount Bruce 1972 Agreement for choosing between MA and steel and meeting the MA obligations were varied to become linked to the date 12 months after MA was first produced under the Hamersley Range 1968 Agreement.401

Mensaros said that he saw the concentrate plant as an important initiative because it allowed unsaleable material to be upgraded and sold.402 He commented that such plants would increase the reserves of ore that were able to be sold and extend the life of the industry, as well as encourage exploration for ore that could be upgraded. In terms of MA, he noted that the company had demonstrated the impracticability of proceeding with the agreement program for its production.403

The concentrate plant was required to be in production in August 1979, which was achieved.404 The next date of importance for processing was August 1980. This was when proposals were due under the Hamersley Range 1968 Agreement for the production of 1mt/a of MA by August 1982. Assuming that happened the date for the MA/steel choice under the Mount Bruce 1972 Agreement would be August 1983.405 As that date ‘slipped’ the choice date would also ‘slip’.

399 Agreement scheduled to Iron Ore (Mount Bruce) Variation Agreement Act, No 94 of 1976, clause 4(2).
400 Ibid, clause 4(2).
401 Ibid, clauses 4(3) and 4(4).
402 Mensaros, WAPD, 12 October 1976, pp. 3025 to 3027.
403 See Chapter 7 Part 2 for details.
405 The cabinet minute for the 1976 variations assumed that the production date would be met and that would make 1983 the date for the MA/steel choice. Cabinet was not directly told that the amendments would tie the choice date to the date of production of MA whereas it had previously been a fixed date of 30 June 1978 (clause 31 of the Mount Bruce 1972 Agreement). By leaving the steel dates unchanged there was a potential mis-match because, if MA was not produced under the Hamersley Range 1968 Agreement before 1988, then the fixed date of 1989 to submit steel proposals could become earlier than the date on which the choice between MA and steel was to be made. This could occur and became one of the reasons for the 1987 amendments to both agreements.
1979 Tabled Variation to Wittenoom 1972 Agreement

The Wittenoom 1972 Agreement did not have any processing obligations. In 1979 additional areas were brought into the agreement through an unratified variation tabled in Parliament that also included processing obligations in return for the additional areas.\textsuperscript{406} At the time Mensaros commented that the obligation was aimed at ensuring that a substantial part of the Marandoo iron ore resource was processed.\textsuperscript{407}

The obligation for the processing of iron ore into concentrates that was introduced to the agreement\textsuperscript{408} was similar to the secondary processing obligation in the Rhodes Ridge 1972 Agreement,\textsuperscript{409} but could be more onerous. Both obligations required the construction of plant to process 6mt/a of ore in three equal increments over time, with first proposals due after 10 years of export.\textsuperscript{410} However the obligations for proposals to be submitted under the varied Wittenoom 1972 Agreement were tied to both time (10, 20 and 30 years) and cumulative tonnage (150mt, 300mt and 450mt).\textsuperscript{411} This could have the effect of advancing the obligation if the tonnage trigger was met before the specified time. Also the amount of ore to be concentrated was the greater of a set tonnage at each proposal date (2, 4 and 6mt/a), or 20% of the yearly average sales over the preceding 5 years.\textsuperscript{412} The combination of the two could see processing required both at earlier dates and in greater amounts.

\textsuperscript{406} Tabled paper No 465, 29\textsuperscript{th} Parliament, 3\textsuperscript{rd} Session, \textit{WAPD}, Vol 227 1979, Iron Ore (Wittenoom) Agreement 1979 variation.
\textsuperscript{407} Press statement by Minister for Industrial Development, Andrew Mensaros, DID 11/79-268, 13 November 1979, DID file 38/78 vol 2, folios 59A and B.
\textsuperscript{408} Tabled paper No 465, 29\textsuperscript{th} Parliament, 3\textsuperscript{rd} Session, \textit{WAPD}, Vol 227, 1979, Iron Ore (Wittenoom) Agreement 1979 variation, clause 4.
\textsuperscript{409} Agreement scheduled to the Iron Ore (Rhodes Ridge) Agreement Authorisation Act, No 36 of 1972, section 23.01.
\textsuperscript{410} The Wittenoom variation at clause 4(10) allowed the Minister to agree to reduce the capacity requirements for the various plants if further processing was undertaken after taking into account the capital investment, employment and utilization of the project iron ore resource involved in the further processing. This could have reduced the amount of ore to be processed, but would have allowed the Minister to preserve the economic benefit expected from the original processing obligation.
\textsuperscript{411} Tabled paper No 465, 29\textsuperscript{th} Parliament, 3\textsuperscript{rd} Session, \textit{WAPD}, Vol 227, 1979, Iron Ore (Wittenoom) Agreement 1979 variation, clause 4(8).
\textsuperscript{412} This would have the effect of increasing the amount of ore to be concentrated at the first proposal date if the iron ore production average exceeded an average of 10mt/a. Assuming the tonnage averaged 15mt/a the requirement would be for a 3mt/a plant rather than a 2mt/a plant. At the second proposal date, if production remained unchanged, the requirement would be to increase the capacity of the plant from 3 to 4mt/a. If production had risen, say to 25mt/a, then the capacity requirement would be increased to 5mt/a. At the last proposal date if production continued at 25mt/a the plant capacity would be increased to 6mt/a. If production rose again, say to 35mt/a, then the capacity requirement would be increased to 7mt/a.
The date for the submission of project proposals under the Wittenoom 1972 Agreement was 31 December 1984,\(^{413}\) having been extended from the original date set in the Agreement of 30 June 1973. This made 31 December 1997 the earliest date for the submission of processing proposals (assuming the trigger was time rather than tonnage and proposals were submitted to time).\(^{414}\)

Just before the variation was finalised Mensaros rejected a request that the 300 and 450mt triggers be removed as they would be a disincentive to increases in shipments of direct shipping iron ore.\(^{415}\) In that rejection he said:

> The whole thrust of the State’s approach in this matter is that the export of substantial quantities of iron ore should be accompanied by a significant degree of processing. It is considered proper that both time and total shipments should be the criteria upon which secondary processing obligations are based. Accordingly I believe that the agreement as drafted conveys the state policy in this matter.\(^{416}\)

At the same time Mensaros was endeavouring to have the Mount Newman 1964 Agreement obligations for secondary processing increased to reflect the production rates from the project.\(^{417}\) However he was unable to gain any linkage under that agreement between production rate and processing amount. One reason was that he decided not to press for fear of losing the beneficiation plant at Newman. However he seems to have been able to stand his ground in this case and achieve a link. This reflected the stronger negotiating position of the state where a project had not commenced operation and the holders of the agreement wanted to bring in new areas and obtain extensions of time for submission of proposals.\(^{418}\) Mensaros foreshadowed that he would bring the same provisions into the Rhodes Ridge Agreement, given the opportunity.\(^{419}\)

\(^{413}\) Date given in letter from Premier to President, Texasgulf Australia Ltd, 13 November 1979, DID file 38/78 vol 2, folios 58, 59.
\(^{414}\) Derived from agreement provisions.
\(^{415}\) Minute from department to Minister, 25 October 1979, DID file 38/78 vol 2, folios 1, 2.
\(^{416}\) Letter from Mensaros to Brechtel, Vice President, Texasgulf Australia Ltd, 26 October 1979, DID file 38/78 vol 2, folios 5, 6.
\(^{417}\) See Chapter 6 Part 1.
\(^{418}\) Minute from department to Minister, 6 February 1979, DID file 38/78 vol 2, folio 96-98.
\(^{419}\) Press statement by Mensaros, DID 11/79-268, 13 November 1979, DID file 38/78 vol 2, folios 59A and B.
1987 Variations to Hamersley Range 1963 and 1968 and Mount Bruce 1972 Agreements

Amendments to the processing obligations in the Hamersley Range 1963 and 1968 and the Mount Bruce 1972 Agreements were introduced to parliament in June 1987. The Minister, David Parker, observed that the agreements prior to the amendments had contained:

...a complicated web of cross referenced obligations...further complicated...by the deferrals of due dates for proposals...granted...in recognition of the dramatic change in world steel consumption patterns which occurred in the 1970s and the far reaching structural reorganizations of the world steel industry...continuing today.  

The variations removed the steel obligation provisions from the Hamersley Range 1963 Agreement and the choice in the Mount Bruce 1972 Agreement between MA and steel. Both the MA provisions under the 1968 Agreement and the complicated steelmaking provisions in the Mount Bruce 1972 Agreement were replaced by simpler provisions. These changes allowed the agreement obligations to be consolidated into the production of MA under the Hamersley Range 1968 Agreement and steel under the Mount Bruce 1972 Agreement.

The variations provided specific dates for the submission of proposals; by 1 October 1988 for 1mt/a MA (with proposals by 1 October 1991 for expansion to 2mt/a capacity) and by 31 December 1991 for 0.5mt/a of steel (with expansion to 1mt/a capacity by 31 December 1999). These replaced the dates for first submission of proposals that were established in the 1976 variations to both agreements of 1980 for MA and 1989 for steel proposals. These new dates also amounted to the deferral of the original deadlines in the Hamersley Range 1968 Agreement for first MA proposals in June 1972 to October 1988 (16 years) and in the

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420 As varied by the 1976 amendments discussed above.
421 Parker, WAPD, 4 June 1987, p. 1886.
422 Agreement scheduled to Iron Ore (Hamersley Range) Agreement Amendment Act, No 27 of 1987, clause 4(2).
423 Agreement scheduled to Iron Ore (Mount Bruce) Agreement Amendment Act, No 26 of 1987, clause 4(5).
425 Agreement scheduled to Iron Ore (Mount Bruce) Agreement Act, No 37 of 1972, clauses 34 to 41.
426 Agreement scheduled to Iron Ore (Hamersley Range) Agreement Amendment Act, No 27 of 1987, clause 5(3) and Agreement scheduled to Iron Ore (Mount Bruce) Agreement Amendment Act, No 26 of 1987, clause 4(6).
427 Agreement scheduled to Iron Ore (Hamersley Range) Agreement Amendment Act, No 27 of 1987, clause 5(3).
428 Agreement scheduled to Iron Ore (Mount Bruce) Agreement Amendment Act, No 26 of 1987, clause 4(6).
429 Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 48 of 1968, clause 9, date set by issue of Paraburdoo areas mining lease.
Hamersley Range 1963 Agreement for first steel proposals in June 1986\textsuperscript{430} to December 1991(5 years).

The variations provided for alternative investments to be made to satisfy the processing obligations under both agreements in circumstances where processing was not feasible or the company chose to put forward alternative investments.\textsuperscript{431} The wording in the 1987 variations in relation to alternative investments was derived from existing provisions\textsuperscript{432} in the Hamersley Range 1968 Agreement. If the Minister agreed that MA or steel (depending on the agreement) was not feasible or the Minister disagreed and the company was found on arbitration to be correct, the company and state were to agree on a substitute obligation that represented an economic development approximately equivalent to the MA/steel obligation.

The definition of alternative investment was widened to allow the company to put forward investments not related to minerals.\textsuperscript{433} In these cases the Minister could reject the investment, whereas if the investment related to adding value to mineral resources he could not unreasonably withhold his approval (which opened any decision to withhold approval to arbitration).\textsuperscript{434} As will be seen the company did take advantage of these provisions when it put the development of its new technology steelmaking at Kwinana forward as an alternative investment to MA.\textsuperscript{435}

**Summary and conclusions**

There were extensive negotiations between the state and the company\textsuperscript{436} that resulted in the 1976 amendments to the Hamersley Range 1968 and Mount Bruce 1972 Agreements described above. These were triggered by a realisation that the MA obligations would be more difficult to meet than had been expected when they were negotiated. The most

\begin{itemize}
  \item Agreed named to Iron Ore (Hamersley Range) Agreement Act, No 24 of 1963, clause 13, proposals 20 years after export date, which was June 1966.
  \item Agreement scheduled to Iron Ore (Mount Bruce) Agreement Amendment Act, No 26 of 1987, clause 4(6) and Agreement scheduled to Iron Ore (Hamersley Range) Agreement Amendment Act, No 27 of 1987, clause 5(3).
  \item Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 48 of 1968, clause 10.
  \item Agreement scheduled to Iron Ore (Mount Bruce) Agreement Amendment Act, No 26 of 1987, clause 4(1) and Agreement scheduled to Iron Ore (Hamersley Range) Agreement Amendment Act, No 27 of 1987, clause 5(1).
  \item Agreement scheduled to Iron Ore (Mount Bruce) Agreement Amendment Act, No 26 of 1987, clause 4(1) and Agreement scheduled to Iron Ore (Hamersley Range) Agreement Amendment Act, No 27 of 1987, clause 5(1).
  \item See Chapter 7 Part 3.
  \item See Chapter 7 Part 2.
\end{itemize}
significant outcomes were that the establishment of a concentrator plant at Tom Price would effectively meet 2mt/a of MA obligations and provide deferrals of the remaining 2mt/a MA obligations under the 1968 Agreement (to 1980) and the date for the choice between MA and steel under the 1972 Agreement (to notionally 1983). In the end the MA obligation deadline was not met and triggered negotiations between the state and the company that resulted in major changes to the 1976 arrangements in 1987.

Despite the issues that were emerging with the meeting of processing obligations, the state still looked to trade access to resource for future processing, as evidenced by the un-ratified variation to the Wittenoom 1972 Agreement described above. The processing provisions were modelled on the Rhodes Ridge 1972 Agreement provisions. However the state was able to ‘improve’ its position by having the amount tied to production volumes and the timing for processing tied to both time and production volumes. This meant that, for the first time, the processing obligation could increase with production rate, rather than be only a fixed amount ‘received’ in return for access to ore and negotiated with certain production expectations in mind on both sides. There was also a ‘penalty’ introduced in that the due dates could be advanced if production increased more rapidly than expected. These were both significant improvements in the state position compared to the earlier agreements.

The 1987 variations were designed to consolidate and simplify the obligations under the Hamersley Range 1968 and Mount Bruce 1972 Agreements. They also took away the complicated provisions that could see the Hamersley Range 1963 steelmaking obligations revive and effectively transferred those obligations to the Mount Bruce 1972 Agreement. There were clauses to deal with alternative investments should MA or steel prove to be uneconomic and they have been used as neither MA nor steel has proved possible.

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437 See Chapter 7 Part 3.
438 See Chapter 7 Part 3 for MA and Chapter 7 Part 4 for steel.
Part 3

Agreement processing obligations outcomes (1974 to 1990) and outstanding obligations as at 1990

In the period from 1974 the full impacts of the first oil shock (1973) and the second (1979) were felt by the customers for Pilbara iron ore, the steel industries of Western Europe and Japan. As a result iron ore production from the Pilbara was the nearly same in 1987 (89mt) as in 1974 (87mt), with production from 1974 to 1980 averaging 85mtpa, from 1981 to 1983 averaging 75.3mt and from 1984 to 1987 averaging 87mt. Growth did commence again in 1988 with 98mt produced and reached 105mt in 1990.

Given the lack of growth until the last few years of the period it is not surprising that no new projects were progressed to agreements in this period. However, some progress was made on meeting obligations and changes were made to agreements to restructure MA obligations (which were proving more difficult to meet than expected). The secondary processing obligation under the Mount Newman 1964 Agreement fell due in 1979 and was met by the establishment of a beneficiation plant at Mount Whaleback. The MA obligation under the Hamersley Range 1968 Agreement also fell due (1975) and was partly extinguished by a concentrator plant established (1976) at Tom Price. That plant also extinguished the remaining obligations for concentrates or 1mt/a of MA under the Mount Bruce 1972 Agreement, (part of which had already been met by the expansion of the Hamersley Iron pellet plant). The steel obligation under the Mount Newman 1964 Agreement fell due towards the end of the period (1989), as would have the similar obligations under the Mount Bruce 1972 Agreement but for the 1987 variations to that agreement that pushed the date for proposals out to 1991.

The resumption of growth would be expected to provide an improved environment for the obligations to be met as the agreement companies would be looking at growing revenues that

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440 Ibid.
441 This period also saw the closure of the Hamersley Iron and Robe River pellet plants (1979 and 1980 respectively). There have been no pellet plants established in the Pilbara since those closures.
442 See Chapter 6 Part 1.
could support processing investments and markets for the products would become available. It could also be expected that new projects could be developed, along with new agreements that would allow the state to continue trade access to ore for processing obligations.

The table below summarises the 1990 position in terms of outstanding obligations.443

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Obligation</th>
<th>Due dates (in 1974)</th>
<th>Due Dates (in 1990)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamersley Range 1963</td>
<td>Secondary processing of 2mt/a capacity</td>
<td>Met by pellet plant in 1968</td>
<td>Met, not in operation</td>
<td>Closed 1979444 Steel chosen under Mount Bruce 1972 Agreement in 1987 and steelmaking provisions in Hamersley Range 1963 removed445</td>
</tr>
<tr>
<td></td>
<td>Steelmaking of 1mt/a capacity</td>
<td>Suspended</td>
<td>Deleted in 1987</td>
<td></td>
</tr>
<tr>
<td>Mount Newman 1964</td>
<td>Secondary processing of 2mt/a capacity</td>
<td>Proposals 1979 Full capacity 1985</td>
<td>Discharged</td>
<td>Met by beneficiation plant established in 1979452</td>
</tr>
</tbody>
</table>

443 The information in columns 2 and 3 come from the table in Chapter 3, Part 4.
444 See Chapter 7 Part 1.
445 See Chapter 4 Part 2.
446 See Chapter 7 Part 3.
447 See Chapter 7 Part 2.
448 See Chapter 7 Part 3.
449 See Chapter 4 Part 2.
450 See Chapter 4 Part 2.
451 Ibid.
452 See Chapter 6 Part 1.
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Full capacity 1980</td>
<td>Full capacity 1991</td>
<td></td>
<td>Steel chosen in 1987</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

453 See Chapter 6 Part 2.
454 Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 93 of 1976, preamble (a) acknowledges expansion of HI pellet plant to 3mt/a capacity and this meets requirement of the agreement scheduled to Iron Ore (Mount Bruce) Agreement Act, No 37 of 1972, clause 8(6), for offsetting pellet requirements under that agreement.
455 See Chapter 4 Part 2.
456 Ibid.
457 Agreement scheduled to Iron Ore (Mount Bruce) Agreement Amendment Act, No 26 of 1987, clause 4(6).
458 Assumption in agreement is that Area ‘C’ ores would have to be pelletised to be sold. This meant that pellet plant was integral to mining proposals. Obligation was therefore more like those in Cleveland Cliffs 1964 Agreement where mining was dependent on contracts for processed ore than processing being something that followed from a period of shipping of ores that could be sold without processing beyond crushing and screening. Upgrading requires secondary processing obligation to be satisfied as that plant would produce feed to upgrading plant.
### Table: Steel Obligations under Various Agreements

<table>
<thead>
<tr>
<th>Location</th>
<th>Obligation Details</th>
<th>Proposal Dates</th>
<th>Due Dates Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>McCamey's Monster 1972</td>
<td>Secondary processing of 2mt/a capacity  Steelmaking of 1mt/a capacity</td>
<td>Proposals 1991 Full capacity 1997 (earliest dates) Proposals 2001 Full capacity 2012 (earliest dates)</td>
<td>Exports commenced 1989&lt;sup&gt;459&lt;/sup&gt;</td>
</tr>
<tr>
<td>Wittenoom 1972 as varied in 1979</td>
<td>Concentrates from treating 6mt/a of ore or 20% of production (whichever was greater)&lt;sup&gt;460&lt;/sup&gt;</td>
<td>Not in agreement 1972</td>
<td>Proposals 2003 Full capacity 2025&lt;sup&gt;461&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

The above table shows that the steel obligations under the Mount Newman 1964 and Mount Bruce 1972 Agreements were current issues between state and companies. The MA obligations under the Hamersley Range 1968 Agreement were about to be met by the HIsmelt demonstration plant. The secondary processing obligations under the Mount Newman, Hamersley Range and Mount Bruce Agreements had been met. The processing obligations under the McCamey's Monster Agreement had been triggered, but were some time off having to be met. The obligations under the Mount Goldsworthy, Rhodes Ridge and Wittenoom Agreements were yet to be triggered by commencement of exports.

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<sup>461</sup> Agreement assumed proposals for mining in 1984; in 1990 proposals were yet to be received. If proposals had been received dates would have been 1997 and 2017.

<sup>462</sup> See Chapter 4 Part 2.
Chapter 5
A new era begins in the Pilbara (1991-2006)

Part 1
New projects and new agreements

Introduction
In the period 1990 to 2006 iron ore production increased from 105mt/a to 249mt/a.463 This was an average growth of 9mt each year, in contrast to the 1974 to 1990 period where production was stagnant from 1974 (87mt) to 1987 (89mt).464 Production grew from 105mt in 1990 to 159mt in 2000 (5mt/a average) before taking off to grow rapidly to 249mt in 2006 (a growth rate of 15mt/a). The growth that first became evident in 1988 (9mt increase over 1987) and was well established by 1990 (16mt increase over 1987) encouraged the development of new projects, with agreements being negotiated that included processing obligations.

The Marillana Creek 1991 Agreement465 was the first agreement for a greenfields Pilbara project since the McCamey’s Monster 1972 Agreement. It was followed by the Hope Downs 1992 Agreement466 and the Yandicoogina 1996 Agreement.467 After this minor burst of new agreements (each of which would lead to the development of new projects that produced direct shipping ores), the next (and last in this period) agreement for a greenfields project Pilbara was the FMG Chichester 2006 Agreement.468

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464 Ibid.
465 Agreement scheduled to Iron Ore (Marillana Creek) Agreement Act, No 2 of 1991. This was for the development of pisolite type ores termed Channel Iron Deposits (CIDs) held by BHP at Marillana Creek (located north of Newman in the central Pilbara).
466 Agreement scheduled to Iron Ore (Hope Downs) Agreement Act, No 62 of 1992. This was for the development of marra mamba ores held by Hancock Prospecting to the west of Newman near the Rhodes Ridge Agreement areas.
467 Agreement scheduled to Iron Ore (Yandicoogina) Agreement Act, No 65 of 1996. This was for the development of CID ores held by Rio Tinto near the BHP Marillana Creek deposits.
468 Agreement scheduled to Iron Ore (FMG Chichester Pty Ltd) Act, No 44 of 2006. This would result in the production of direct shipping ores from the agreement resource base of marra mamba ores.
Given that these new Pilbara agreements were negotiated in a situation where the state was experienced with agreements and processing obligations since the early 1960s, the way that processing obligations were treated in the agreements could be expected to reflect that experience.

As well as these new agreements there were amendments to the Hamersley Range 1963 and Wittenoom 1972 Agreements in 1992 that transferred part of the resource areas and all of the processing obligations from the 1972 agreement in 1979 to the 1963 agreement.

**Marillana Creek 1991 and Hope Downs 1992 Agreements**

The processing obligations in the Marillana Creek 1991 and Hope Downs 1992 Agreements were identical and are discussed together here. The obligations were similar to those found in the alumina agreements from the 1960s and 1970s (e.g., Pinjarra and Worsley alumina refinery agreements). Those agreements called for the company to conduct studies into further processing and to consult with the state on implementation if feasible processing was identified. The state, if it believed processing was feasible and the company was not willing to undertake processing, could have a third party carry out that processing and the company was obliged to supply ore to the third party for at least 10 years at a reasonable price set by comparable sales by the company.

Considering the specific obligations in the earlier iron ore agreements which set out the type and amount of processing expected and timelines for that processing, these obligations were vague and not onerous. Also there had been no processing under the alumina agreements, which could suggest that the provisions were not likely to be effective in achieving processing under the new agreements. The second reading speeches for both agreements did

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469 The only other greenfields Pilbara iron ore agreement that was entered into between 1991 and end 2012 was the Mineralogy 2002 Agreement (Agreement scheduled to Iron Ore Processing (Mineralogy Pty Ltd) Agreement Act, No 26 of 2002). This was based on the development of low grade (30% Fe) magnetite ores (which are common in the Pilbara). These ores cannot be directly exported because of the low Fe content and require upgrading before they can be used or exported. The agreement anticipates that the ores would be upgraded and processed into pellets, DRI or steel before being exported. Consequently there are no processing obligations to be met in the future so this agreement will not be discussed.


471 Agreement scheduled to Iron Ore (Hope Downs) Agreement Act, No 62 of 1992, clause 27.


473 Not defined, no specified amount and with no specific reporting timetable, although the Minister could ask for reports on investigations every 2 years.
no more than describe the clauses.\textsuperscript{474} The debates on both agreements had no specific comment on the processing clauses which is somewhat surprising given the importance that had been placed on processing obligations in the past, the gap since the last new agreements had been before Parliament and the likely ineffectiveness of the approach as demonstrated by the experience with the alumina agreements.

Both agreement Acts provided for limits on production; 10 mt/a in the case of Marillana and 15mt/a in the case of Hope Downs. The tonnage limits reflected the planned project capacities given in the recitals to both agreements.\textsuperscript{475} Both had clauses dealing with expansions beyond the tonnage limits.\textsuperscript{476} The Minister’s approval was required before proposals could be submitted to increase production beyond the prevailing tonnage limit. The approved production number reset the limit and a new approval was required to go beyond the new limit. The Minister, in agreeing to the request, was able to place conditions on the company, including conditions relating to variations or additions to the agreement. The only constraint on the Minister was that he could not require variations of certain clauses without the consent of the company. These clauses did not include the processing clause. By implication, the Minister could require changes to the processing obligation each time production expanded. This does not explain why the agreement obligation was initially not onerous but the inclusion of tonnage limitations did give the state a potentially strong position to achieve a connection between production levels and the amount of processing as the projects expanded.

The processing obligations in the Hope Downs 1992 Agreement attached to Areas A and B.\textsuperscript{477} Area C was made up of lands that were to be separately held under the agreement until 2003.\textsuperscript{478} Unless the parties had negotiated arrangements for the development of the iron ore deposits in Area C by that time the lands would fall out of the agreement into the Mining Act. This provision may have been modelled on a clause in the BHP 1964 Agreement where areas

\begin{footnotesize}
\textsuperscript{475} Marillana Creek was expected to have an initial production level of 5.5mt/a, with the capacity to produce up to 10mt/a (Agreement scheduled to Iron Ore (Marillana Creek) Agreement Act, No 2 of 1991, recital (e) and Hope Downs was a project with an initial production of up to 15mt/a (Agreement scheduled to Iron Ore (Hope Downs) Agreement Act, No 62 of 1992, recital (b).
\textsuperscript{476} Agreement scheduled to Iron Ore (Marillana Creek) Agreement Act, No 2 of 1991, clause 11 and Agreement scheduled to Iron Ore (Hope Downs) Agreement Act, No 62 of 1992, clause 11.
\textsuperscript{477} Ibid, clause 6.
\textsuperscript{478} Ibid, clause 15.
\end{footnotesize}
in the Pilbara (separate from those that were the subject of the agreement) were held by BHP under the agreement for 50 years from 1964 for development on the basis of negotiated arrangements.479

1992 Variations to Wittenoom 1972 and Hamersley Range 1963 Agreements

The 1972 Wittenoom Agreement480 was varied in 1992 to delete the processing clause.481 Some of the TRs under the agreement were transferred to the Hamersley Range 1963 Agreement. The processing clause was also transferred (without change).482 The date for submission of mining proposals for these transferred TRs under the Hamersley Range 1963 Agreement was set at 28 February 1993,483 but no specific date was set for exports to commence. The processing obligation (which was for the production of iron ore concentrates) required first proposals to be submitted 10 years after the export date (possibly earlier if 150mt of production was reached).484 If a time of four years from submission of mining proposals to exports was assumed, the first processing proposals could be due in 2007. The first mining from the transferred areas was at Marandoo and exports commenced from that mine in 1994,485 which meant that processing proposals were due in 2004 at the latest.

In the Minister’s second reading speech he noted only that the processing obligations had been transferred entirely over to Hamersley Iron and that the Wittenoom 1972 Agreement would be held by Hancock Prospecting without any processing obligations.486

The processing obligation was met by the construction of a fines processing plant at Paraburdoo in 1994/95487 that had the capacity to treat 13mt/a of fines.488 The agreement

479 Agreement scheduled to Iron Ore (The Broken Hill Proprietary Company Limited) Agreement Act, No 103 of 1964, clause 23(4)(g). This arrangement ended when the agreement was terminated in 1991 without any development of the lands having happened in the intervening 27 years (see Agreement scheduled to Iron Ore (Marillana Creek) Agreement Act, No 2 of 1991, clause 5).
480 As varied by a 1979 unratified variation that inserted a processing obligation into the agreement (in return for the inclusion of additional areas into the agreement). For details see discussion in Chapter 4 Part 2.
481 Agreement scheduled to Iron Ore (Wittenoom) Agreement Amendment Act, No 41 of 1992. This meant the agreement returned to its original 1972 form of having no processing obligations.
483 Ibid, clause 4(14).
484 Ibid, clause 4(14).
486 Second Reading speech by Minister Taylor, WAPD, 3 June, 1992, pp. 3207, 3209.
obligation was for the construction of a plant to process 6 mt/a of ore, to be built in three stages over 20 years from first exports (possibly earlier depending on production\textsuperscript{489}).

This is a case where the state achieved more processing than required and at an earlier date. It was also the first time that the processed ore did not come from the ore resource that was the basis for the obligation (the transferred TRs); instead it came from other ores held by the company under the Hamersley Range 1968 Agreement.

**Yandicoogina 1996 Agreement**

Instead of following the approach to processing taken in the Marillana Creek and Hope Downs Agreements\textsuperscript{490} the processing obligation in the Yandicoogina 1996 Agreement was for an ultimate capacity of 3mt/a of MA.\textsuperscript{491} The agreement also provided for the company to choose to submit an alternative project of equivalent economic value as a 2mt/a MA plant to the Minister to replace the MA obligation.\textsuperscript{492} This was similar in concept to the provisions in the 1987 variation to the Hamersley Range 1968 Agreement,\textsuperscript{493} but that required the alternative investment to match the MA obligation, whereas the Yandicoogina 1996 Agreement required a lesser investment to MA if the alternative investment route was taken.\textsuperscript{494}

A tonnage limitation of 15mt/a was included,\textsuperscript{495} which reflected the expected capacity of the initial project.\textsuperscript{496} The company could only go beyond this tonnage to 30mt/a with the Minister’s approval.\textsuperscript{497} However it was specifically stated that the Minister could only obtain


\textsuperscript{489} See discussion of 1979 unratified variation in Chapter 4 Part 2.

\textsuperscript{490} No specific requirement, but tonnage limitations that allowed for processing to be required in return for increased production tonnages.

\textsuperscript{491} Agreement scheduled to Iron Ore (Yandicoogina) Agreement Act, No 65 of 1996, clause 23 (2).

\textsuperscript{492} Ibid, clause 23 (6).

\textsuperscript{493} Agreement scheduled to Iron Ore (Hamersley Range) Agreement Amendment Act, No 27 of 1987, clause 5(3).

\textsuperscript{494} No reason was given for this in the second reading speeches nor was the difference raised in the parliamentary debate; the reason may only be known when the files from 1996 become available after 2021. But the lesser requirement would be expected to encourage the company to take the alternative investment route.

\textsuperscript{495} Agreement scheduled to Iron Ore (Yandicoogina) Agreement Act, No 65 of 1996, clause 10(1).

\textsuperscript{496} Ibid, recital (b).

\textsuperscript{497} Ibid, clause 10(2).
increased processing as a part of agreeing to a tonnage increase with the consent of the company.\footnote{Ibid, clause 10 (2)(b)(v).} This contrasted with the situation under the Marillana 1991 and Hope Downs 1992 Agreements where the Minister could effectively require more processing in return for allowing the project to expand. However the Minister could always hold back on giving expansion approvals to encourage agreement from the company to more processing. To expand production beyond 30mt/a, the company had to meet the processing obligation.\footnote{Ibid, clause 10 (3).} This was a significant requirement that gave the Minister a strong position if the company wanted to expand beyond 30mt/a and had not met the processing obligation.

Detailed proposals for a MA plant were to be submitted on or before the earlier of 10 years after export of iron ore commenced or the production of 150 mt of iron ore.\footnote{Ibid, clause 23(2)(a).} This plant was to have an installed capacity of 2mt/a within 3 years of submission of proposals and 3mt/a within 8 years.\footnote{Ibid, clause 23(2).} The company was also obliged to produce MA at these rates while it continued to export iron ore.\footnote{Ibid, clause 23(5).} There was a provision for successive 3 year deferrals where the Minister agreed with the company that MA was not economically feasible and for a tribunal to consider the matter if the Minister disagreed.\footnote{Ibid, clause 23(3).} If the tribunal agreed with the company, then the obligation was deferred for a further three years; if not then the company had to come forward with proposals or risk being in breach of the agreement with the ultimate outcome being determination of the agreement.\footnote{This provision was clearly rooted in the similar provisions made in the Hamersley Range 1968 and Hanwright 1968 Agreements (Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 48 of 1968, clause 10 and Agreement Scheduled to Iron Ore (Hanwright) Agreement Act, No 49 of 1968, clause 9).}

The processing clause in the agreement was broadly similar to the processing clause inserted in the Wittenoom 1972 Agreement in 1979.\footnote{Unratified Iron Ore (Wittenoom) Agreement 1972 Variation Agreement, signed on 13 November 1979 and tabled in both Houses of Parliament on 13 November, 1979 as Tabled paper No 465, 29th Parliament, 3rd Session, \textit{WAPD}, Vol 227 1979.} In turn the 1979 provisions were similar to the Rhodes Ridge 1972 Agreement processing provisions, showing some continuity in thinking by the state.\footnote{Agreement scheduled to Iron Ore (Rhodes Ridge) Agreement Authorisation Act, No 36 of 1972, clause XXIII.}
Previous agreements had provided a royalty reduction for processing, but that did not reflect the degree of processing and only applied if the agreement company did the processing. The Yandicoogina 1996 Agreement included the new policy that was announced in early 1996 where the producer would now receive a variable discount on the royalties applying to the ore used for processing that reflected the degree of processing (0.5% for pellets, 1% for MA and 2% for steel) and applied whether the producer did the processing or sold the ore to others to process within the state.\textsuperscript{507}

**Hope Downs Agreement 2003 Variations to Hope Downs 1992 Agreement**

The Hope Downs 1992 Agreement was varied in 2003\textsuperscript{508} to replace the general processing clause with one that specifically provided for 3mt/a of MA to be produced.\textsuperscript{509} It also provided that the production rate could not exceed 30mt/a without the Minister’s approval until proposals for processing had been approved.\textsuperscript{510} The changes meant that the state had lost the ability that existed under the 1992 agreement to demand increases in the processing obligation when approving production increases and could now only increase the amount of processing with the consent of the company. However it did now have a specific obligation and that may have been a better outcome.

The variation also extended the time that Area C could be held under the agreement from 30 June 2003 to 31 December 2008.\textsuperscript{511} In 2010 there was a further variation that brought these areas into the agreement mining lease by 31 December 2012 and provided for the submission of proposals for the development of these areas (now termed the East Angelas deposit) within two years.\textsuperscript{512} There was no increase made to the amount of processing required or the time and tonnage triggers in the 1992 Agreement, which may represent a lost opportunity for the state.


\textsuperscript{508} Unratified Iron Ore (Hope Downs) Agreement 1992 Variation Agreement, signed on 22 October 2003 and tabled in Legislative Assembly on 23 October 2003 as Tabled paper 1637, 36\textsuperscript{th} Parliament, 2\textsuperscript{nd} Session.

\textsuperscript{509} Ibid, clause 4(g). The new processing clause called for the establishment over time of a 3mt/a MA plant and was identical in wording to the processing clause 23 in the Yandicoogina 1996 Agreement except that the aggregate production trigger for the submission of proposals for MA was increased to 200 mt from 150mt.

\textsuperscript{510} Ibid, clause 4©.

\textsuperscript{511} Ibid, clause 4(d).

FMG Chichester Agreement 2006
The further processing clause in the FMG Chichester 2006 Agreement is identical to that in the Yandicoogina Agreement in terms of triggers, processing (MA), processing tonnages and alternative investments. In terms of tonnage limitations, the Company could produce up to 45mt/a (compared to 30) by having proposals approved in the normal way by the Minister.514

Discussion and conclusions
After a hiatus that lasted nearly 20 years from 1972, expansions of existing and development of new projects began to be mooted for the Pilbara. The opportunity to negotiate new project agreements from 1990 allowed the state to consider what it wanted to achieve in terms of processing and how that would be expressed in the agreements. The first thing to note is that there was no new secondary processing or steel obligations. Instead the specific obligations for processing were all built around MA and alternative investments. The agreement provisions were similar to the provisions in the 1987 variation to the Hamersley Range 1968 Agreement MA515 but, for the first time, the company was obliged to operate the processing plants while it was exporting, which was an innovation. The second is that the state looked to achieve links between production and processing amounts516 and to control production volumes while processing obligations were not being met, having been triggered (another new concept). These were much stronger state positions than in past agreements where these links and controls did not exist. Under those agreements the state really had no option other than to give extensions of time if processing was not economic, while the companies could expand iron ore production and exports without any restrictions.

The Marillana Creek 1991 and Hope Downs 1992 Agreements were a little different in that no specific processing obligation was included but approval of the Minister for increases in production (beyond 10mt/a and 15mt/a respectively) was required before proposals could be submitted. The Minister could demand changes to processing obligations as a condition of

514 Ibid, clause 10.
515 Agreement scheduled to Iron Ore (Hamersley Range Agreement Amendment Act, No 27 of 1987, clause 5(3).
516 This directly addressed the concerns that the state had in the mid-1970s (see Chapter 6 part 1) over the obligations being fixed at amounts that reflected expected production at the time of negotiation while the company was able to substantially increase production beyond expectations. The government felt at the time that the obligations should be able to be increased to reflect production levels, but was not able to achieve this position with the existing agreements.
his approval.\textsuperscript{517} This was a potentially strong position for a Minister to require additional processing to be undertaken in return for allowing a specified production increase. The requirement could be continued by the resetting of the production limit each time an increase in production was approved.\textsuperscript{518} This would mean that the state could keep requiring more processing as production increased and the company would never be free of processing obligations.

The effectiveness of these provisions in continually gaining strong processing commitments in return for agreeing to project expansions was never tested as the Marillana Creek obligation was met by the BHP HBI plant\textsuperscript{519} and the Hope Downs obligation was changed to specific obligations in 2003 before production had commenced. This position was diluted (probably to the point where it was ineffective) in the Yandicoogina 1996 Agreement in which the Minister has/had to obtain the company agreement to changes in the processing obligation and this was carried over to the FMG 2006 Agreement.\textsuperscript{520} The possibly offsetting ‘win’ for the state was the inclusion (for the first time) of production limits that would remain in place until processing was done as required by the agreement (although the Minister could agree to a succession of new limitations on request from the company).\textsuperscript{521} Provisions were also included that meant the timing of the processing obligation falling due was dependent on both time and tonnes being produced, meaning that if production increased rapidly the requirement for processing proposals would come sooner.\textsuperscript{522} This approach was first seen in the Rhodes Ridge 1972 Agreement\textsuperscript{523} and introduced into the Wittenoom 1972 Agreement in 1979.\textsuperscript{524}

\textsuperscript{517} Agreement scheduled to Iron Ore (Marillana Creek) Agreement Act, No 2 of 1991, clause 11(2)(b) and Agreement scheduled to Iron Ore (Hope Downs) Agreement Act, No 62 of 1992, clause 11(2)(b).
\textsuperscript{518} Agreement scheduled to Iron Ore (Marillana Creek) Agreement Act, No 2 of 1991, clause 11(4) and Agreement scheduled to Iron Ore (Hope Downs) Agreement Act, No 62 of 1992, clause 11(4).
\textsuperscript{519} See Chapter 7 Part 3.
\textsuperscript{520} See discussion under Yandicoogina 1996 Agreement heading above.
\textsuperscript{521} Agreement scheduled to Iron Ore (Yandicoogina) Agreement Act, No 65 of 1996, clause 10(3).
\textsuperscript{522} Ibid, clause 23(2)
\textsuperscript{523} Agreement scheduled to the Rhodes Ridge Agreement Authorisation Act, No 36 of 1972, clause XXIII.
Barnett commented in parliament on the use of tonnage limitations in agreements. He termed them to have been the ‘most effective obligation’ in encouraging further processing and noted that tonnage limitations had been an important consideration for BHP in deciding to proceed with the HBI plant. He also noted that Yandicoogina iron ore was an attractive product in the market. This meant that Hamersley Iron was likely to export more than the 150mt limit before the 10 year requirement to submit proposals and this would place pressure on the company for early processing.

The tonnage limits approach was a quite different way to approach agreements than was taken in the agreements of the 1960s. Those agreements allowed unlimited expansion of the projects without any change to the processing obligation. The obligation was viewed at that time by both sides as part of the trade of access to ore within a defined area (300 sq miles) that was given by the state in return for iron ore exports today (early royalty revenue for the state) and industrial development (processing) in the future by the agreement company. This meant that when obligations came due the state could only extend, or renegotiate around, existing obligations. The strategy was to restrict the resource base in the expectation that the companies would come to the state in the future for more resource areas and then the state would ‘expect the rewards to the state and the community…would be much greater’.

When the state realized just how much faster production had expanded than expected, it attempted to negotiate a between link production and processing. However it soon found that from the company side there was no real acceptance that there should be any relationship

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527 Ibid, p. 7686.
528 Court, WAPD, 26 September 1963, p.1421 and Court, WAPD, 27 October 1964, p. 1908
529 Court, WAPD, 26 September 1963, pp. 1418, 1419, 1421, 1422 and Court, WAPD, 16 October 1963 and Court, WAPD, 27 October 1964, pp. 1906, 1908, 1909.
531 For example see the comments by Court in the parliamentary debate on the Hamersley Range 1963 Agreement where he said that ‘…any single project would require production in the order of 3,000,000 tons per year’ (WAPD, 15 October 1963, p. 1678) and for the Mount Newman 1964 Agreement where he said ‘…exports could be on a large scale-possibly 5,000,000 tons per year (WAPD, 27 October 1964, p. 1908) and for the same agreement where he said that exports to Japan from the Pilbara could be expected to reach 10 million tons per year in the near future (WAPD, 3 November 1964, p. 2145).
532 See Chapter 6 Part 1.
to production; processing in their view was in return for access to all of the ore in the agreement areas, no matter when or at what rate that ore was produced. In addition the stagnation in production following the first oil shock in 1973 meant the time was not right. The state gave up the fight in any meaningful way by the early 1980s. The industry began expanding in the late 1980s, which gave the state an opportunity to introduce tonnage limitations that covered three situations:

1. expansions beyond initially set production levels where the state could seek (but not require) increased processing requirements as part of agreeing to greater production;
2. if processing was not done to the required times, production levels could be frozen at amounts specified in the agreement or approved by the Minister;
3. processing due dates were set in terms of both times and cumulative tonnes, which meant that processing triggered by production amounts would be required earlier than the dates set by times.

The approach taken to processing in the Yandicoogina 1996, Hope Downs 1992 (as varied in 2003) and FMG Chichester 2006 Agreements was also different to past agreements being specifically built around MA from the start, with the option for the company to put forward alternative projects that process and add value to minerals mined in the state. This is more significant than it might seem at first glance as the ores held under the three agreements were unsuitable for direct use in MA production because of their low iron and high moisture contents, being either marra mamba (Hope Downs and FMG Chichester) or pisolite ores (Yandicoogina). Upgrading of the iron content was essentially impossible for the pisolite type ores and difficult (and probably uneconomic because of the amount of material sent to waste in the upgrading process) for the marra mamba ores. In this context the main purpose of the MA obligations was rather to provide a yardstick against which to judge alternative processing projects, since they were likely to be the only way to achieve processing under the agreement.

The use of MA as the “base” obligation with the option of doing other processing that had the same economic value was first seen in the Hanwright 1968 and the Hamersley Range 1968 Agreements. The wording in the new agreements is a close copy of the wording in these

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older agreements, although it is fair to say that the expectations in the older agreements at the
time were that MA would be produced and the alternatives were seen as back-ups in the event
of problems that meant MA could not be done economically.

In the parliamentary debate on the FMG Chichester 2006 Agreement, the responsible
Minister (Bowler) said that ‘the secondary processing obligations are standard for modern
iron ore agreements’.\(^{534}\) He also said that ‘the secondary processing obligations are
considered to be an important way of promoting industry diversity and adding value to the
state’s mineral wealth’.\(^ {535}\) This has been a consistent state theme since the very first Pilbara
iron ore agreements were before parliament in the early 1960s.\(^ {536}\)

Given that the Minister declared at the time the FMG Chichester 2006 Agreement was
ratified that the approach to processing in that agreement was seen as the model for the
future\(^ {537}\) and given that the provisions were the same (apart from the tonnage limit) as in the
Yandicoogina 1996 and Hope Downs 1992 (as amended in 2003) Agreements, the question
can be asked as to what has been the experience to date with these provisions? This will be
taken up in Chapter 10 of this thesis.


\(^{535}\) Ibid, p. 1168.

\(^{536}\) Court, *WAPD*, 26 September 1963, p. 1418.

Progress in meeting new and existing agreement obligations

Obligations in new agreements

The table below shows the obligations that were included in the new project agreements entered into over the period 1991 to 2006, changes in the period to those obligations and their status in 2006.

Table 5.1 Obligations in new agreements and progress made to 2006

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Obligation as negotiated</th>
<th>Obligation changes post ratification</th>
<th>Status in 2006</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marillana Creek 1991</td>
<td>Study further processing, report outcomes and implement feasible processing(^{538})</td>
<td>No changes</td>
<td>Obligation met by BHP HBI plant</td>
<td>Discharged by first production from BHP HBI plant at Port Hedland(^{539})</td>
</tr>
<tr>
<td>Hope Downs 1992</td>
<td>Study further processing, report outcomes and implement feasible processing(^{540})</td>
<td>MA of 3mt/a capacity or alternative project equivalent to 2mt/a of MA</td>
<td>Mine under construction. Proposals for MA due on the earlier of 10 years of exports or when total exports reach 200mt</td>
<td>MA obligation introduced through 2003 unratified variation.(^{541})</td>
</tr>
<tr>
<td>Yandicoogina 1996</td>
<td>MA of 3mt/a capacity or alternative project equivalent to 2mt/a of MA</td>
<td>No changes</td>
<td>Partially met ahead of time by alternative project. (HIsmel plant, stage 1).</td>
<td>Second stage of HIsmel plant would see obligation fully met. First ore shipments in 1999 meant MA. Proposals were due on earlier of 2009 or total exports reaching 150mt.(^{542})</td>
</tr>
<tr>
<td>FMG Chichester</td>
<td>MA of 3mt/a capacity or agreement post-dates 1990</td>
<td>Mine under construction</td>
<td>Proposals due on earlier of 10 years of</td>
<td></td>
</tr>
</tbody>
</table>

\(^{538}\) Agreement scheduled to Iron Ore (Marillana Creek) Agreement Act, No 2 of 1991, clause 24.
\(^{539}\) See Chapter 7 Part 3.
\(^{540}\) Agreement scheduled to Iron Ore (Hope Downs) Agreement Act, No 62 of 1992, clause 27.
\(^{541}\) Unratified Iron Ore (Hope Downs) Agreement 1992 Variation Agreement, signed on 22 October 2003 and tabled in Legislative Assembly on 23 October 2003 as Tabled paper 1637, 36\(^{th}\) Parliament, 2\(^{nd}\) Session, clause 4(d).
\(^{542}\) Agreement scheduled to Iron Ore (Yandicoogina) Agreement Act, No 65 of 1996, clause 23.
In 2006 there were three post 1990 agreements (Hope Downs, Yandicoogina and FMG Chichester) that had identical obligations to produce 3mt/a of MA or an alternative project equivalent to 2mt/a of MA. The Yandicoogina obligation would have been close to being triggered by the amount of iron ore that had been produced. When Minister Brown announced that he had given approval for the expansion of the project from 24 to 36 mt/a capacity, he said that the two staged HIsmelt project would fully meet the Yandicoogina 1996 Agreement processing obligations. This meant that MA had been replaced by an alternative project, which was to be the HIsmelt commercial plant at Kwinana. Proposals for the first stage were approved in 2002. The dates for the Hope Downs MA obligation were not yet set as the project was in the construction phase in 2006 (operations began in March quarter 2008). Construction was also commencing under the FMG Chichester 2006 agreements.

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544 The alternative project could have been expected to have had a 3mt/a yardstick, but there is no mention in the parliamentary debates in relation to any of the agreements of this evident anomaly. It was first seen in the Yandicoogina 1996 Agreement and has been carried over into the later agreements. This suggests that it was either a negotiated amount (which would seem a strange thing for the state to agree to) or it was an error in the first place that was not noticed by the state or was noticed later and the precedent argument prevented correction in the later agreements.


547 Ibid.

548 Brown, WAPD, 1 April 2003, p. 5909.
Agreement, which placed it in the same situation (first production commenced in May 2008\(^{550}\)).

**Obligations in existing agreements**

There were also processing obligations under pre 1991 agreements to be met in this period and the table below shows the status of those obligations in 1990\(^ {551}\) and in 2006. There was only one outstanding obligation in 2006; steel under the Mount Bruce 1972 Agreement. This was now contingent on stage 2 of the HIs melt demonstration plant proceeding and leading to steelmaking being done at Kwinana, which would discharge the obligation.\(^ {552}\)

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Obligation as at 1990</th>
<th>Due dates as at 1990</th>
<th>Status in 2006</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mount Newman 1964</td>
<td>Steelmaking of 1mt/a capacity</td>
<td>Proposals 1991</td>
<td>Obligation met by implementation of Pilbara Energy Project</td>
<td>Steelmaking replaced by Pilbara Energy Project</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Full capacity 2002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hamersley Range 1968 as</td>
<td>2mt/a of MA or alternative investment</td>
<td>Alternative</td>
<td>Obligation met by commissioning of HIs melt demonstration plant(^{553})</td>
<td>HIs melt proposals received 1990. Construction commenced 1991, plant commissioned and operated until 1999.</td>
</tr>
<tr>
<td>varied in 1987(^ {554})</td>
<td></td>
<td>investment proposals</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>received</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mount Bruce 1972 as varied</td>
<td>Steel of 1mt/a capacity or alternative investments</td>
<td>Proposals due 1991</td>
<td>Dates being extended</td>
<td>Stage 2 HIs melt development at Kwinana could lead to steel making and dates being extended in anticipation(^{557})</td>
</tr>
<tr>
<td>in 1987(^ {556})</td>
<td></td>
<td>Full capacity 1999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mount Goldsworthy 1964 as</td>
<td>Secondary processing of ore of 2mt/a capacity</td>
<td>Both being extended</td>
<td>Obligations met by BHP HBI plant</td>
<td>Discharged by first production from BHP HBI plant at Port Hedland(^ {558})</td>
</tr>
<tr>
<td>varied in 1971</td>
<td>Upgrading of</td>
<td>in concert with Area ‘C’ mine development</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


\(^{551}\) From Chapter 4 Part 3.

\(^{552}\) See Chapter 7 Part 4.

\(^{553}\) See Chapter 6 Part 2.

\(^{554}\) Iron Ore (Hamersley Range) Agreement Amendment Act, No 27 of 1987, clause 5(3).

\(^{555}\) See Chapter 7 Part 3.

\(^{556}\) Iron Ore (Mount Bruce) Agreement Amendment Act, No 26 of 1987, clause 4(6).

\(^{557}\) See Chapter 7 Part 4.

\(^{558}\) See Chapter 6 Part 3.
<table>
<thead>
<tr>
<th></th>
<th>1mt/a of secondary processed ore</th>
<th>time extensions</th>
<th>Obligations met</th>
<th>Exports commenced 1989.559</th>
<th>Both obligations met by first production from BHP HBI plant at Port Hedland560</th>
</tr>
</thead>
<tbody>
<tr>
<td>McCamey’s Monster 1972</td>
<td>Secondary processing of 2mt/a capacity</td>
<td>Proposals 1999 Full capacity 2005 Proposals 2019 Full capacity 2030</td>
<td>Obligations met by BHP HBI plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steelmaking of 1mt/a capacity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wittenoom 1972 as varied in 1979</td>
<td>Concentrates from treating 6mt/a of ore or 20% of production (whichever was greater)561</td>
<td>Proposals 2003 Full capacity 2023 (earliest dates)562</td>
<td>Obligation met by Paraburdoo fines processing plant563</td>
<td></td>
<td>Obligation transferred out of Wittenoom Agreement to Hamersley Range Agreement along with some mining areas.564 Wittenoom Agreement continues on with no processing obligations</td>
</tr>
</tbody>
</table>

The Mount Newman 1964 Agreement steel obligation was replaced by the Pilbara Energy Project and that project proceeded in the period.565 The Hamersley Range 1968 Agreement MA obligation had been met by the establishment of the HIsmelt demonstration plant at Kwinana as an alternative investment.566 The BHP HBI project at Port Hedland discharged (ahead of time) the triggered secondary processing and steel obligations under the McCamey’s Monster 1972 Agreement and the yet to be triggered secondary processing and upgrading obligations under the Mount Goldsworthy 1964 Agreement.567 That project also discharged the Marillana Creek 1991 Agreement obligation to conduct studies. The Paraburdoo fines plant more than discharged the processing obligation inserted into the Wittenoom 1972 Agreement in 1979 and well ahead of time (1995 compared to 2003).568

560 See Chapter 6 Part 3.
562 Agreement assumed proposals for mining in 1984; in 1990 proposals were yet to be received. If proposals had been received in 1984 dates would have been 1997 and 2017.
563 See Chapter 5 Part 1.
564 Ibid.
565 See Chapter 6 part 2.
566 See Chapter 7 Part 2.
567 See Chapter 6 Part 3.
Chapter 6
Outworking of Mount Newman 1964 and BHP Agreements obligations

Part 1

Mount Newman 1964 Agreement secondary processing obligation

Secondary processing requirements
The Mount Newman 1964 Agreement provided for secondary processing proposals to be received by the end of year 10 (March 1979 being 10 years after first export of iron ore by the project) for processing 2mt/a of iron ore. The clause was essentially the same as the secondary processing clause in the Hamersley Range 1963 Agreement. The expectation at the time was that pellets would be the form of the secondary processing.

Discharging the secondary processing requirements through a beneficiation plant
The Minister for Industrial Development, Andrew Mensaros, met with the Mount Newman Joint Venturers (the ‘JVs’) on 9 June 1976 and was informed that an expansion of the Mount Newman project to 70mt/a of iron ore production was planned. As a first stage, beneficiation of 5.5mt/a of 54% Fe ore to produce 4.7mt/a of DSO grade ore (plus 60%) was planned. This was confirmed in a letter to Mensaros, where reference was made to work having been done over the past two years on proposals to expand production beyond 40mt/a. This expansion was to be in three stages, the first being the beneficiation of Mt Whaleback ore, then development of nearby ore bodies to provide blending ores. The beneficiation process was described as being a heavy media separation process.

569 Agreement scheduled to Iron Ore (Mount Goldsworthy) Agreement Act, No 97 of 1964, as varied by Agreement scheduled to Iron Ore (Mount Goldsworthy) Agreement Amendment Act, No 58 of 1971; Agreement scheduled to Iron Ore (McCamey’s Monster) Authorisation Act, No 104 of 1972; and Agreement scheduled to Iron Ore (Marillana Creek), No 2 of 1991.
570 Agreement scheduled to Iron Ore (Mount Newman) Agreement Act, No 75 of 1964, clause 11.
571 Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 24 of 1963, clause 12.
574 Letter from Pilbara Iron Limited on behalf of JVs to Mensaros, 18 June 1976, DID file 165/73 vol 2, folios 292 to 296.
The plans for the beneficiation plant were confirmed in a further letter of 21 September 1976 to Mensaros.\textsuperscript{575} The JVs requested approval in principle for the beneficiation plant to discharge the secondary processing obligation. The plant would treat 170\text{mt} of material over 30 years to produce 120 to 130\text{mt} of saleable ore.

There were concerns at the plans to expand production to 70\text{mt/a} and the mismatch that would then exist between production levels and the amount of processing required by the agreement. The department advised Mensaros that the agreement obligation was written for a project that would ship of 12-15\text{mt/a} of ore, not one shipping in excess of 40\text{mt/a}, and that a greater processing obligation was required.\textsuperscript{576} Mensaros annotated the advice saying that the state should;

\begin{quote}
...explore a policy whereby the processing obligations by companies be rather tied as a proportion of directly shipped ore than set in absolute quantities which were originally set on a much smaller quantity of direct shipments...
\end{quote}

Even so the department subsequently advised that the proposed beneficiation plant complied with the agreement definition of secondary processing, represented a substantial investment and would extend the project life.\textsuperscript{577} Mensaros subsequently gave his approval in principle to the beneficiation process being considered as secondary processing, but called for considerably greater tonnages of ore to be treated before he would agree that the secondary processing obligation had been totally discharged.\textsuperscript{578}

Mensaros and Charles Court (as Premier) met with Amax (one of the JVs) in March 1977.\textsuperscript{579} In that meeting the state pressed the case for more processing. Amax agreed that the state did have a case, but did not offer any positive initiative. In terms of the beneficiation plant there was agreement that it met the legal requirements and Amax said it was supportive of proceeding with the plant, but that other JVs (CSR and BHP) were reluctant.

\textsuperscript{575} Letter from Newman, General Manager, Mt Newman Mining Co Pty Limited, on behalf of JVs to Mensaros, 21 September 1976, DID file 165/73 vol 2, folios 351-1 to 351-3.
\textsuperscript{576} File note by DID department head, Ed Gorham, to Mensaros, 28 October 1976, DID file 165/73 vol 2, folio 373.
\textsuperscript{577} Minute from department to Minister, 30 October 1976, DID file 165/73 vol 2, folio 374.
\textsuperscript{578} Letter from Mensaros to Newman, 5 November 1976, DID file 165/73 vol 2, folio 15, 16.
\textsuperscript{579} Mensaros notes of meeting held on 26 March 1977 involving him, Premier and Amax, dated 29 March 1977, DID file 273/72 vol 2, folio 186.
Court sent a telex to BHP in May 1977 taking up the arguments for Mount Newman to do more processing.\footnote{Telex Court to BHP dated 30 May 1977, DID file 165/73 vol 2.} He noted that the project had started at 5mt/a, with an expectation that it would increase to 12mt/a by 1975 and the 2mt/a secondary processing obligation was commensurate with this expectation. The project had now reached 40mt/a capacity. A 5mt/a beneficiation plant, as part of an expansion to 70mt/a, was not seen as an adequate amount of processing, even though it met the legal requirements of the agreement. Court invited the JVs to negotiate something more acceptable.

The department informed Mensaros in August that it understood that Amax was keen to do the beneficiation plant, even if it was not accepted a discharging the obligation; CSR was not keen, but would be encouraged if it was accepted; and BHP was prepared to proceed, although it had no obligation under the agreement.\footnote{Minute from department to Minister, 1 August 1977, DID file 89/77 vol 1, folio 24 A.} Mensaros met with CSR soon after receiving this advice and was told that the JVs had decided to proceed with the beneficiation plant provided the state accepted it as discharging the secondary processing obligation.\footnote{File note from Minister, 8 August 1977, of meeting with CSR on 6 August 1977, DID file 89/77 vol 1.}

Mensaros wrote to Court in early October 1977 referring to discussions by both with the JVs and commented that the issues from Court’s telex of May had been raised with the JVs in those discussions.\footnote{Minute Mensaros to Court, 2 October 1977, DID file 81/77 vol 1, folios 1 and 2.} He also noted that the beneficiation plant met the legal requirements of the obligation, but more processing was expected by the state, subject to normal economic criteria. However he felt that there was a possibility that the plant might not go ahead and said he would not press on the processing issues until the JVs committed to the plant.

Mensaros said that he had considered alternatives that could fit with the state’s wish to see a better match of production and processing.\footnote{They were: larger beneficiation plant (rejected by him as there was no low grade ore to process after proposed plant went ahead); haematite pellets (rejected as market was poor due to Japan reducing pellet imports in favour of sinter fines); DR pellets (accepted as possible, but some market doubts); MA (possible, but depended on gas supply and price); semi-finished steel (rejected because of world overcapacity in steel production).} His conclusion was that DR pellets and MA were the most realistic alternatives and proposed to ask the JVs to agree to 3mt/a of pellets and 4mt/a of MA ‘at an appropriate time’ (not specified).
The proposal for the processing of 7mt/a of low grade ore at Mt Whaleback to produce 5mt/a of high grade ore was submitted by the JVs in October 1977. The JVs commented that the beneficiation (heavy media separation) plant would process more than three times the amount of ore required to meet the original obligation (7mt compared to 2mt/a). There was no offer to consider other processing or comment on the issues raised by the state in the discussions leading up to the proposal being submitted.

Mensaros recommended approval of the proposal to Cabinet in November 1977. He referred to discussions with the JVs where he and the Premier accepted that the beneficiation plant met the agreement’s legal requirements;

...while at the same time impressing upon the joint venturers that the government cannot accept this as being the full extent of their involvement in processing (until their steel commitment comes due in 1994) and that they have a moral obligation to actively pursue further processing.

Mensaros did not recommend making the approval subject to changes to the agreement to increase processing obligations to be more in line with production as that might cause the JVs to not proceed with the proposal. He preferred to defer negotiations to amend the agreement to what he termed ‘a more opportune time’ although he said that when approving the proposal he would take the opportunity to formally state that the government expected a substantial amount of additional processing well before the steel obligation became due. He would also request yearly reporting on work done to further evaluate processing alternatives and on market and economic factors relevant to processing opportunities as part of his approval. Cabinet agreed to the submission subject to discussions with the JVs;

...about an understanding in respect of a more equitable relationship between gross tonnages and processing commitments.

Mensaros wrote to the JVs in November 1977 deferring approval of the proposal pending the receipt of information in relation to a number of technical matters. Once these were

586 Cabinet minute from Mensaros “Mount Newman Co Pty Ltd Processing Obligations”, 1 November 1977, DID file 82/77 vol 1, folios 81 to 83.
587 Ibid.
588 Cabinet approval on 7 November 1977 of recommendations in Cabinet minute from Mensaros “Mount Newman Co Pty Ltd Processing Obligations”, 1 November 1977, DID file 82/77 vol 1, folio 83.
589 Letter from Mensaros to Newman, 9 November 1977, DID file 82/77 vol 1, folios 85 to 87.
received he said that approval would be forthcoming. He then went on to say that he was required by Cabinet to ensure that there was a clear understanding between the parties as to ‘the state’s attitude towards the matter of further processing’. Mensaros stated that, while the proposed plant met the agreement’s requirements in a legal sense, the state had a ‘very firm objective that the JVs should achieve a substantial amount of additional processing before the obligations for steel fall due’. He said that it was a requirement of the state that the JVs submit proposals for any further increase in overall production capacity and that they should include increased processing that would ‘move towards a more equitable relationship between’ production and processing. Mensaros also sought agreement from the JVs for annual reporting on secondary processing, although this was not tied to approval of the proposal or to the state’s requirements for processing. He closed by seeking a meeting with the JVs to discuss the matters raised in the letter.

The JVs replied in November 1977.590 In that reply they provided the requested information, agreed to yearly reporting and requested approval of the proposal. In terms of discussing additional processing they ‘ducked’ the issue by saying that market conditions meant that capacity expansions after the plant was in operation were some time off and the matter was not therefore of immediate urgency. However they would consider the Minister’s letter further and a date for discussions could be set when this consideration was complete; essentially the JVs were advising Mensaros not to expect any quick action on the issues raised in relation to processing.

Mensaros formally approved the beneficiation plant proposal in November 1977.591 In the approval letter he commented on the need for a balance between processed and exported ore, but left the matter open for future discussion with JVs ‘as soon as is convenient’ (thereby leaving the timing in the hands of the JVs).

Conclusion

With the opening of the beneficiation plant in June 1979592 the secondary processing obligation under the Mount Newman 1964 Agreement had been met. While the plant was not

590 Letter from Newman to Mensaros, 18 November 1977, DID file 82/77 vol 1, folios 102, 103.
591 Letter from Mensaros to Newman, 23 November 1977, DID file 82/77 vol 1, folio 106.
592 Date of 26 June 1979 given in letter from Mount Newman to department, 20 June 1979, DID file 89/77 vol 1, folio 211.
the expected pellet plant, secondary processing was defined broadly enough to include upgrading of iron ore using a heavy media plant. 593

The iron ore to be processed through the plant was to be 7mt/a, which was 3.5 times the agreement’s requirement. It was also more than the amount first put to the state by the JVs (5.7mt/a). 594 Also the agreement called for the 2mt/a treatment capacity to be met over 5 years from 1981 to 1986, 595 whereas the beneficiation plant would be able to process 7mt/a of iron ore from its establishment in 1979. So not only was it more processing, it was earlier than required. If it was assumed that the processing was ‘linked’ to production as the state wanted and the processing level of 2mt/a in the agreement equated to an iron ore export project of 12mt/a capacity, 596 then at 45mt/a capacity (including beneficiation plant output) the processing level should be 7.5mt/a. On this basis the state would have had no grounds for argument for more processing until there was further expansion.

The JVs had foreshadowed an increase to 70mt/a which meant that the state could have argued at that time that the JVs should agree to process a further 4.2mt/a of iron ore. However the production rate at Mount Newman varied between 30 and 40mt/a from 1975 until 1993 597, meaning the opportunity did not arise before the steel making obligation had fallen due in 1989.

593 Agreement scheduled to Iron Ore (Mount Newman) Agreement Act, No 75 of 1964, clause 1.
595 Agreement scheduled to Iron Ore (Mount Newman) Agreement Act, No 75 of 1964, clause 11(1)(a) and (b).
596 Telex Court to BHP dated 30 May 1977, DID file 165/73 vol 2 in which Court said that the agreement was negotiated in the expectation of a 12mt/a capacity by 1975.
597 Department of Resources Development, Western Australian Iron Ore Review, January 1996, page 18, Department of Resources Development, Government of Western Australia.
Part 2

Mount Newman 1964 Agreement steelmaking obligation

Obligation Timing
The steelmaking obligation under the Mount Newman 1964 Agreement required the submission of steelmaking proposals that would ultimately see 1mt/a of steel produced by the Mount Newman JVs (other than BHP, which was not required to be part of meeting the obligation), by 1 April 1989 (20th anniversary of the commencement of exports from the Mount Newman project).598

BHP becomes responsible for meeting the obligation
In September 1985, the Minister for Minerals and Energy, David Parker, issued a press statement welcoming the decision by BHP to purchase the Amax and CSR shares in the Mount Newman project.599 This would give BHP a controlling 85% ownership. While Parker made no comment on the implications of the increased BHP ownership, the result would be that BHP would now be responsible for meeting the steelmaking obligation; something that it had not taken on when it joined the project and did not need to take on unless its share in the project increased beyond 35%.600

BHP wrote to Parker in December 1985 requesting that the BHP position in relation to the Mount Newman processing obligations remain as it was before BHP acquired the AMAX and CSR shares, which was that BHP had no obligations.601 If Parker had agreed to the request it would mean that the steelmaking obligation would fall on the holders of the residual 15% (Seltrust (BP) 5% and Misui-C Itoh 10%).

Parker met with BHP and said that he expected that BHP would accept the obligation and meet the date for submission of proposals.602 He did say that the state would not require uneconomic processing. In that situation he would look at other options of similar value.

598 Agreement scheduled to Iron Ore (Mount Newman) Agreement Act, No 75 of 1964, clause 12.
599 Press statement by Minister for Minerals and Energy, David Parker, 30 September 1985, DID file 89/77 vol 3, folio 89, 90.
600 Briefing note attached to minute (both by department) to Parker, 21 October 1985, DID file 89/77 vol 3, folio 65.
601 Letter from BHP to Parker, 10 December 1985, DID file 89/77 vol 3, folio 148-150.
602 Notes by department of meeting between Parker and BHP, 11 December 1985, DID file 89/77 vol 3, folio 179-186.
outside processing, such as rail electrification or bringing forward another new mine, rather than continue to extend due dates. Parker confirmed his position in a letter to BHP and indicated that he saw the achievement of processing as fundamental to agreements.\footnote{Letter from Parker to Carter (BHP), 24 December 1985, DID file 89/77 vol 3, folios 213-216.} Parker then met with BHP in March 1986 and again rejected the BHP request to be relieved of the steelmaking obligation, while suggesting that options other than steel could be acceptable to the state.\footnote{Notes by department of meeting between Parker and BHP, 6 March 1986, DID file 89/77 vol 4, folio 58.} Despite having been rejected twice, BHP did proceed with the purchase of the Amax and CSR shares in 1986 and no changes were made to the steelmaking obligation.\footnote{Western Australian Steel Study Taskforce, \textit{Steel Study Report} Western Australian Steel Study Taskforce, Government of Western Australia, June 1992, p. 6-9.}

**Meeting the obligation**

Having taken over responsibility for the steelmaking obligation, BHP would have been required to do something when the date for the submission of proposals fell due (for the first time) on 1 April, 1989.\footnote{The DID file (117/78 vol 1) that most likely has papers relating to what happened on the due date is not open until September 2015 (at the earliest). Other files that would provide information on events after April 1989 are not open, so information in the public arena has been used to complete this section of the thesis.} An extension of 2 years (to 31 March 1991) was granted while BHP investigated the feasibility of a sinter plant at Port Hedland.\footnote{Western Australian Steel Study Taskforce, \textit{Steel Study Report}, p. 6-24.} This study can be assumed to have shown that a sinter plant was not feasible as BHP approached the state in late 1991 to discuss other possibilities.\footnote{Gallop, \textit{WAPD}, 9 December 1993, p. 9602.}

In October 1992 BHP came to government with the concept of a Pilbara energy project that involved gas pipelines and gas fired power stations in the Pilbara. BHP wanted this project to extinguish all BHP processing obligations, not just the Mount Newman steelmaking obligation (Other obligations were in the Mount Goldsworthy 1964, McCamey’s Monster 1972 and Marillana Creek 1991 Agreements).\footnote{Ibid.} In early 1993, BHP announced that it would make a A$300m investment in a Pilbara energy project and said the government had indicated that the project would meet all of the BHP processing obligations as an alternative project.\footnote{Wainwright, Janet, “Pilbara to get $300m gas line”, \textit{The Sunday Times}, 17 January 1993, p. 9 and Hammond, Jane, “BHP spends $300m to quit government deal”, \textit{The Australian}, 18 January1993, p. 1.} This was confirmed by the then Premier, Carmen Lawrence.\footnote{Media statement by Premier Lawrence “BHP commended on plans for Pilbara energy system”, 18 January 1993, http://www.mediastatements.wa.gov.au/Archived-Statements/Pages/Lawrence-Carmen-Lawrence.aspx.} However, the
agreed arrangements required amendments to the BHP agreements and this could only be done with parliamentary approval after the February 1993 election.612

During the election campaign, the then opposition (coalition led by Richard Court) indicated that it thought BHP had been treated too generously and that it would reconsider the situation if it won the election.613 The opposition having won the election, the new Minister for Resources Development, Colin Barnett, made a statement to parliament in September 1993 that gave an account of negotiations with BHP post the election (which were made possible by some errors made by the previous government that were set out in his statement) and the outcome from those negotiations.614 That was that the Pilbara energy project put forward by BHP would only extinguish the Mount Newman 1964 Agreement steelmaking obligation. The energy project would be the subject of a separate agreement. The other obligations would be replaced by a single obligation to build a 4mt/a sinter plant (or an acceptable alternative investment) to the value of $400m indexed. This obligation would be included in a new agreement.

The Pilbara Energy Project 1994 Agreement was introduced to parliament by Barnett in December, 1993.615 That agreement provided616 for the building of a power station at Port Hedland (completed June 1995), a gas pipeline from Karratha to Port Hedland (completed to supply gas to the power station) and either a power transmission line to Newman or a gas lateral from the goldfields gas pipeline to a gas fired power station at Newman (lateral and power station completed July 1996617). An amendment to the Mount Newman 1964 Agreement was introduced to parliament at the same time.618 That provided that the steel obligation would be extinguished when the Pilbara Energy Project 1994 Agreement requirements had been met.619 The completion of the agreement requirements in mid-1996 meant that the steel obligation had been extinguished, some 7 years after proposals

614 Barnett, WAPD, 23 September 1993, pp. 4584, 4585.
615 Barnett, WAPD, 7 December 1993, p. 9025.
616 Agreement scheduled to Pilbara Energy Project Agreement Act, No 7 of 1994, recital (a) and (c).
were first due. There now were no further processing obligations to be met under the Mount Newman 1964 Agreement.

Summary and Conclusions

When the steelmaking obligation fell due, the state had already rebuffed efforts by BHP to allow it to be relieved of its obligation. If the state had agreed the obligation would have fallen on essentially a “rump” group within the project that could never have met the obligation. The original relief from processing that BHP had in return for entering the Mount Newman project had some logic as the project was in danger of not proceeding for some time without the BHP entry. This meant that the state could justify the concession to BHP on processing (which at the time included both secondary and steelmaking obligations). The later request had no such logic for the state and was properly rejected.

At the time of the approach from BHP, Parker did restate the long held state position that it did not want to see uneconomic processing and was prepared to look at alternatives. When the proposals fell due in 1989, BHP received an extension of time in return for considering a sinter plant. This idea was not proceeded with and BHP came to the state with the Pilbara energy project and obtained agreement in early 1993 that the project would extinguish not only the Mount Newman obligations but also those under other BHP agreements.

During the election period the opposition had supported the BHP Pilbara energy project, but was concerned at the extent of the processing relief being offered and said it would reassess the deal if elected.620 In the end the new coalition government decided to honour the cabinet decision of the previous Labor government to accept the project as extinguishing the steelmaking obligation. As the rest of the BHP processing obligations were not mentioned in the cabinet submission or decision it would not agree to them being included and negotiated a separate arrangement for them to be extinguished.621

Had BHP achieved the deal that it thought it had negotiated with the Labor government it would have received a very good deal for building the Pilbara energy project that it had promoted to the state. Even with the revised deal with the coalition government of extinguishing the steelmaking obligation for an investment of $300m in energy infrastructure

620 McGeough, Paul and Brown, Karen, “Tough line vow on BHP”.
621 Barnett, WAPD, 23 September, 1993, pp. 4584, 4585.
BHP could be seen to have received a good deal from the state. But it was a much improved deal for the state when the other BHP obligations were replaced by a consolidated obligation to spend A$400m (indexed). As seen in Part 3 this resulted in BHP building a HBI plant at Port Hedland that cost far more than this requirement.

Why the Labor government accepted the BHP proposal to extinguish all of its processing obligations in return for the BHP Pilbara energy project may be found in the arguments put to parliament by the outgoing Labor Party Minister, Ian Taylor, in response to a statement to parliament by Barnett. Taylor argued that the oversize gas pipeline to Port Hedland was a major benefit to the prospects of processing in Port Hedland and that the prospects for processing under the other agreements were not improved by simply putting them into a new agreement. Economics would be the final judge of when the obligations would be met. He saw that having the energy infrastructure established now was of more value than having unmet obligations in agreements. A more detailed, but essentially the same, argument was put by Geoff Gallop (former Labor government Minister for Energy) in the debate for the Pilbara Energy Project 1994 Agreement.

In neither case did Labor present arguments why BHP should be released from all of its Pilbara agreement obligations other than to claim that there would be future benefits to the state from the project proceeding. This was the same type of ‘blue sky’ argument used by the same Labor government in agreeing in 1989 to extinguish the Hamersley Range 1968 MA obligations in return for the establishment of a Hlsmelt demonstration plant at Kwinana (see Chapter 7 Part 3) and that comparison was acknowledged by Taylor.

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624 Media statement by Taylor, Ian, “Opposition attack on BHP risks jeopardising future projects”, 18 January 1993, where he said ‘The action which had been taken was similar to that for CRA, which resulted in the $150m Hlsmelt research and development facility being built at Kwinana’, http://www.mediastatements.wa.gov.au/Archived-Statements/Pages/Lawrence-Ian-Taylor.aspx.
Part 3

Discharging BHP processing obligations by the establishment of a HBI\textsuperscript{625} plant at Port Hedland

Introduction

By the early 1990s BHP had taken on yet to be triggered processing obligations linked to the undeveloped Mining Area C deposits through its takeover of Mount Goldsworthy in the mid-1980s and triggered processing obligations through its purchase of the McCameys Monster project in 1991 (Production had commenced in the first quarter of 1989 while the agreement was held by Hancock Prospecting\textsuperscript{626}).\textsuperscript{627} It had also entered into the Marillana Creek 1991 Agreement that had a requirement to study processing, but as production increased more onerous obligations could be negotiated by the state in return for agreeing to the increases.\textsuperscript{628}

The then Labor government had agreed in 1993 to the BHP Pilbara energy project extinguishing the Mount Newman 1964 Agreement steelmaking obligations as well as the obligations under the other BHP agreements, with this to be implemented when the government was re-elected.\textsuperscript{629} Labor was not re-elected and the new Coalition government only agreed to the extinguishment of the Mount Newman obligations in return for the energy project. The other obligations were to be consolidated into a single obligation for construction of a 4mt/a sinter plant or the investment of A$400M (indexed) in alternative.\textsuperscript{630}

\textsuperscript{625}HBI is a type of MA that has been formed into a briquette to protect the MA product from being oxidized by oxygen in the air. HBI stands for ‘hot briquetted iron’.


\textsuperscript{627}Agreement scheduled to Iron Ore (Mount Goldsworthy) Agreement Act, No 97 of 1964, clause 12 Secondary processing and clause 13 Industry for additional upgrading of beneficiated ore, as varied by Agreement scheduled to Iron Ore (Mount Goldsworthy) Agreement Amendment Act, No 58 of 1971 and Agreement scheduled to Iron Ore (McCamey’s Monster) Authorisation Act, No 104 of 1972, clauses 33 ‘Secondary Processing proposals’ and 34 ‘Iron and Steel Industry’.

\textsuperscript{628}Agreement scheduled to Iron Ore (Marillana Creek) Agreement Act, No 2 of 1991, clause 24 ‘Further processing’.

\textsuperscript{629}Chapter 6 Part 2.

Discharging the BHP obligations

The arrangements for the consolidation of the processing obligation were put in place with
the ratification of the Iron Ore Processing 1994 Agreement (IOP Agreement)631 and
variations to the other agreements.632 The variations deleted the processing obligations from
the agreements. They also provided that production under any agreement could not exceed
15mt/a or the combined tonnages could not exceed 30mt/a while the consolidated obligation
was not met in full, unless the Minister consented to an increase in production (which then
effectively became the new limit).

The IOP Agreement was not specific in terms of the obligation to be met or the timing for the
meeting of the obligation. It was specific that A$400m (indexed) of investment was required
to discharge the processing obligation.633 Barnett had initially said that the processing
requirement would either be a 4mt/a sinter plant or A$400M, whichever was the greater.634
In the end a sinter plant was just one of the further processing options that were allowed.635
Barnett commented that specific mention had been dropped because of drafting difficulties
and that the $400m was thought to be a greater investment so a mention of an alternative of
lesser investment did not make sense.636

The processing clause provided that BHP would continue to examine the technical and
economic feasibility of further processing with no time requirement to implement
processing.637 Alternative investments (very widely defined638) could also be put forward for
approval by the Minister that would, in part or full, meet the processing obligation.639 A
counting mechanism was set up for the Minister and BHP to agree, as each investment was
made, on how much of the A$400M had been discharged.640 This amount was set in June

631 Agreement scheduled to the Iron Ore Processing (BHP Minerals) Agreement Act, No 30 of 1994 (now
repealed).
632 Agreements scheduled to the Acts Amendment (Mount Goldsworthy, McCaney’s Monster and Marillana
633 Agreement scheduled to Iron Ore Processing (BHP Minerals) Agreement Act, No 30 of 1994 (now repealed),
clause 27 ‘Project cost of facilities’.
635 Agreement scheduled to Iron Ore Processing (BHP Minerals) Agreement Act, No 30 of 1994 (now repealed),
clause 1 ‘further processing’ definition.
637 Agreement scheduled to Iron Ore Processing (BHP Minerals) Agreement Act, No 30 of 1994 (now repealed),
clause 5(1).
638 Ibid, clause 1 ‘alternative investments’ definition.
639 Ibid, clause 5(4).
640 Ibid, clause 27.
1993 dollars, which meant the real value of the investment was retained over time without being eroded by inflation.641

In August 1995 cabinet agreed to a BHP proposal for a HBI plant to be established at Port Hedland and that this would extinguish the BHP processing obligations.642 The IOP 1994 Agreement would be replaced by two new agreement(s) that would split the project into a HBI plant of 2mt/a capacity and a beneficiation plant, with a total investment of A$1.5bn.643 Commissioning of the HBI plant would meet the processing obligations under the IOP Agreement and remove the tonnage restrictions under the BHP agreements.644

The HBI plant was commissioned in July 1999 (first production in February 1999, which met the formal agreement requirement in relation to the processing obligation being met645), with a capacity of 2.5mt/a and an investment of A$2.3bn.646 However technical problems dogged the plant and after some safety issues that caused the plant to be placed on care and maintenance in November 2004 it was permanently closed in August 2005.647

Conclusions

The IOP agreement was innovative in the use of an indexed capital cost figure that could be met through a wide range of expenditures (including, but not restricted to iron ore processing), with no specific dates being set for proposals. This compared to past agreements where specific processing requirements with fixed minimum capital requirements and dates for submission of proposals were used. Tonnage limitations were placed on production in the BHP agreements that would be removed when the expenditure requirement had been met.648

641 Agreements had previously set minimum dollar amounts to be spent on processing, but these had never been indexed. This meant they became irrelevant over time and the focus was always on the amount of processing required under the agreement, not the cost of implementation.
648 Agreements scheduled to the Acts Amendment (Mount Goldsworthy, McCamey’s Monster and Marillana Creek Iron Ore Agreements) Act, No 29 of 1994.
Barnett saw this as being ‘a much stronger requirement than an arbitrary date that can be continuously extended’.  

The tonnage limitation provisions had the apparently sensible provision that the Minister could agree to an increase in the limitation if he decided that was acceptable even though the processing obligation had not been fully met. The new tonnage would then replace the old. This was a potential weakness in this new arrangement as a Minister would be reluctant to stop the economic development (and royalty revenue to the state) represented by new production because the obligation had not been partially or fully met. Another weakness was that once the required amount of money had been expended, iron ore production under the three agreements could continue to increase without restriction. This meant that the problem of production running ahead of expectations with no opportunity for the state to look to match processing and production tonnes in some way would continue. In the event, the obligation was met in a single investment in the HBI plant, which meant the Minister was not faced with deciding a request to increase the tonnage limitation.

The initiative by BHP to build a HBI plant was very nearly the Pilbara processing success that the state had been searching for. The agreement obligations that it replaced were either weak (Marillana Creek) or due some undetermined time in the future (Mount Goldsworthy) or some time off (McCamey’s Monster) 1999. While the value of the investment (A$400m) required to discharge the obligations was less than an estimated escalated value of the replaced obligations (A$1.176bn), the estimated investment by BHP of A$1.5bn exceeded both figures and the plant was built ahead of the time requirements in the other agreements. However, the plant was already in serious technical and financial trouble within 18 months of opening, did not operate for long (around 5.5 years) and was permanently closed in August 2005 after BHP had written off nearly A$3bn. The associated beneficiation plant was

650 The obligations that were extinguished were; Mount Goldsworthy secondary processing (process 2mt/a of ore, min investment of A$16m) and upgrading secondary processed ore (produce 1mt/a of upgraded ore, min investment $40m); McCamey’s Monster, secondary processing (process 2mt/a of ore, min investment of A$40m, first proposals 1999) and steel (1mt/a, min investment of A$100M, first proposals 2009) and Marillana Creek, ongoing studies (only). In the 23 years from 1971 Australian inflation meant that prices had increased by six times so an equivalent value would be at least around A$1,176m compared to the A$400m now required to be spent.
retained in operation by BHP, so it could be said that some processing continued on beyond the closure of the HBI plant.
Chapter 7
Outworking of Hamersley Range Agreement obligations

Part 1
Secondary processing obligation

Pellet plant establishment, expansion and closure
The Hamersley Range 1963 Agreement called for the establishment of secondary processing that would ultimately process two million tons of iron ore by 1983, after submitting proposals in 1976 and commencing production in 1978.653 While the agreement defined secondary processing quite widely, the expectation at the time was that pellets would be produced.654

In parliament Court gave no rationale for the amount or timing of secondary processing but did comment that;

...the government places great importance on this phase of the Agreement. We are hopeful-and confidently hopeful- that the company will reach this phase of the agreement ahead of the timetable in the agreement.655

This confidence was reflected in the wording of the secondary processing clause where it was stated that the company was investigating the feasibility of secondary processing.656 This was in contrast to the wording in the iron and steel processing clause where it was stated that would ‘in due course’ investigate feasibility.657

This difference in wording suggests that the two obligations were seen differently and is consistent the comment by Court that;

653 Agreement scheduled to Iron Ore (Hamersley Range) Agreement, No 24 of 1963, clause 12. Ultimate capacity date defined as Hamersley year 17, proposals date as Hamersley year 10 and commencement of production in Hamersley year 12. These are years after the date of first exports, which was August 1966.
654 Court, WAPD, 26 September 1963, pp. 1418-1423, where he said at p.1422 that: ‘The interest generally in this type of production is considerable. It could be one of the most important industrial advances we will make in the next few years…[because of]…world trend towards the use of partly processed blast furnace feed [which is] very strongly towards pellets.’
655 Ibid, p. 1421.
656 Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 24 of 1963, clause 12.
…with all the research available to the government it was apparent that the most optimistic estimate on present information for the establishment of a second iron and steel industry in Australia on an economic basis was 20 years.\textsuperscript{658}

The state’s view of the relative prospects for pellet and steel production was supported by the comments in the Hamersley Iron press release made immediately after the agreement was signed;

\textit{The early objectives are firstly the large scale export of high grade iron ore...secondly...the production of pellets for export... [there are] no immediate plans to proceed with [steel production]... [this] will receive the company’s attention at an appropriate time.}\textsuperscript{659}

Just over two years after the agreement ratification, a contract was signed (August 1965) by Hamersley Iron with the Japanese steel mills for the purchase of 18mt of pellets over 11 years from 1968.\textsuperscript{660} Proposals were submitted on 15/6/66 for the construction of a 2mt/a pellet plant to produce 63\% Fe pellets from April 1968.\textsuperscript{661} The proposal stated that the pellets would be produced from fines surplus to the existing Japanese contract. This contact was for 65.5mt of iron ore in the ratio 75\% lump, 25\% fines\textsuperscript{662} compared to expected run of mine production of 55\% lump, 45\% fines.\textsuperscript{663} In producing the required 49mt of lump, 40mt of fines would be produced. The contract required only 16mt of fines, leaving a surplus of 24mt of fines. The pellet plant would require around 20mt of fine ore which would use up most of these surplus fines.

The pellet plant at Dampier started production (with a nominal capacity of 2 mt/a) in February 1968\textsuperscript{664} and was expanded to 3mt/a capacity in 1975.\textsuperscript{665} Hamersley Iron announced

\begin{thebibliography}{99}
\bibitem{658} Court, \textit{WAPD}, 26 September 1963, p.1423.
\bibitem{659} Hamersley Iron press statement, 31 July 1963, DID file 222/63.
\bibitem{660} The Tex Report, \textit{Iron Ore Import '70}, The TEX Report Co Ltd, Japan, p. 25.
\bibitem{661} Letter Madigan to Court, 15 June 1966, DID file 139/66.
\bibitem{662} The Tex Report, \textit{Iron Ore Import '70}, Hamersley No 1 Contract, p. 22.
\bibitem{663} Attachment to Letter Madigan to Court, 15 June 1966, DID file 139/66.
\bibitem{664} CRA, \textit{Annual Report 1968}, p. 11.
\bibitem{665} The Tex Report, \textit{Iron Ore Import 1973}, p. 74, and \textit{Iron Ore Import 1974}, p. 92. This expansion was done without an agreement requirement to do so. However there was a later agreement benefit for the company when it was accepted in 1976 as extinguishing part of the obligation under the Mount Bruce 1972 Agreement to produce concentrates (see part 2 of this Chapter).
\end{thebibliography}
the closure of the pellet plant in April 1979. The Japanese had agreed to take 2.5mt/a of fines for 5 years and 9 months from July 1979 as an extension to an existing fines contract in place of an extension of the pellet contract.

The state was kept informed by Hamersley Iron of the progress of the negotiations with the Japanese over the contract extension and actively lobbied the Japanese in support of the continued purchase of pellets from the company. These efforts were ultimately unsuccessful. There were two reasons given to the state by Hamersley Iron for the decision of the Japanese not to extend the contract: oil price increases making pellet production uneconomic and the policy of the mills to concentrate on sinter as preferred furnace burden over pellets. The company also noted that it had not been successful in obtaining alternative markets; however the plant would be retained on a care and maintenance basis in the hope of finding markets in the future. This proved to be a faint hope and the plant was never re-opened. Hamersley Iron had previously seen some prospect of sales to China that would allow the plant to remain open, but they evidently did not materialize.

The state Minister, Mensaros, in responding to a request from the Commonwealth Minister for comment before the new export contract for fines as a replacement for a pellet contract extension was approved, said that;

*The state has no option but to face the reality of the situation and recognize that closure of the plant is inevitable.*

**Conclusions**

The construction of the pellet plant met the agreement obligation well ahead of the times set out in the agreement (proposals in 1966 when not required until 1976). The pellet plant had its own commercial logic for Hamersley Iron as the iron ore export contract with the Japanese
meant surplus fines would be produced. Without a use, those fines would have to be stockpiled until they could be sold. A pellet plant provided that use and the Japanese were prepared at that time to enter into contracts for the purchase of the pellets.

The closure did show flaws in the agreement processing obligation provisions as they did not require the continued operation of the pellet plant or provide for situations where a plant did close. Equally though the agreement gave the company no ‘credits’ for meeting the obligation earlier than required and for the expansion. More pressure could have been put on both the company and the Japanese by the state if there had been an agreement obligation to operate the pellet plant or to negotiate for a replacement. The agreement could then have been used to ‘force’ a further contract from the Japanese so that production could continue or allowed the state to negotiate a replacement secondary processing obligation with the company. The state could have tried to prevent the approval of the new fines contract by the commonwealth Minister as a means of keeping the pellet plant in production but apparently decided not to pursue that approach when it was consulted by that Minister before he agreed to that contract.  

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674 Ibid.
Introducing obligations for metallised agglomerates into agreements

The first agreement to have metallised agglomerates (MA) as a specific processing obligation was the Hanwright 1967 Agreement.\textsuperscript{675} That agreement contemplated that pellets would be the initial export product with a choice to be made 14 years after the commencement of the agreement\textsuperscript{676} between the phased construction of MA capacity, reaching 3mty/a after 27 years, and the phased construction of steel capacity reaching 1mt/a after 25 years.\textsuperscript{677} The state had changed its position in relation to steel production in favour of MA. This was made clear by Court when he said that;

\begin{quote}
...reference to steel is only made in case the company cannot successfully embark on the production of metallised agglomerates or a substitute acceptable the government.\textsuperscript{678}
\end{quote}

The idea of a substitute for a specified obligation was also a first. This was done by widening the definition of MA in the agreement by the inclusion of; ‘…products resulting from some equivalent or more advanced form of metallising process approved by the Minister’.\textsuperscript{679} This was a limited widening and did not envisage substitutes that did not involve iron ore processing.

The production of steel was now a third choice option, a major shift in position in a short time from the view that steel was the most important processing outcome that the state was seeking from the development of the Pilbara iron ore resources.\textsuperscript{680} However it was one that was hinted at by Court in his second reading speech for the Mount Newman 1964 Agreement. There he talked about the state keeping in touch with research that aimed to produce products that had metal content as feed to steelmaking processes rather than ores and the interest in

\begin{footnotes}
\item[675] Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 19 of 1967.
\item[676] Ibid, clause 7(3) defines commencement date as the date on which all proposals are approved by the Minister or determined by arbitration.
\item[677] Ibid, clause 11.
\item[679] Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 19 of 1967, clause 1.
\item[680] Court, \textit{WAPD}, 26 September 1963, p. 1418.
\end{footnotes}
Europe in sourcing this type of material and the potential this represented for processing in WA.  

This shift was further emphasized in the Hamersley Range 1968 Agreement. This brought some of the Hanwright 1967 Agreement areas into the agreement and specifically required 3mt/a MA production as the processing obligation in a situation where it might have been expected that the steel obligation under the original Hamersley Range 1963 Agreement would be made more onerous instead. At the same time Hamersley Iron took a major position in the Hanwright 1967 Agreement, which was also amended in 1968 to provide that MA could substitute for most of the pelletising obligation. The timing for the choice between MA and steel was brought forward to 7 years and MA would be produced much earlier, while the steel timing remained about the same. These are actions that confirm that the state had decided that MA was a more likely processing outcome than steel.

In his second reading speech on the Hamersley Range 1968 Agreement Court said that the agreement meant there was now;

\[
A \text{ firm commitment to produce metal in the north by the end of 1972. This is a major}
\]
\[
\text{breakthrough in our objective to develop a major partnership as a supplier of natural }
\]
\[
\text{and processed materials to the steel industries of the world which have not got }
\]
\[
\text{indigenous raw materials.}
\]

The process that Hamersley Iron was considering was a coal based kiln process known as SLRN (an acronym based on the owners of the technology Stelco, Lurgi, Republic Steel and National Lead). Coal based MA was seen by Hamersley Iron at the time as preferable to gas based processes.

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681 Court, WAPD, 27 October 1964, p. 1907.
682 Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 48 of 1968.
683 Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 24 of 1963.
684 Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 49 of 1968, clause 8.
685 Ibid, clause 9.
686 Court, WAPD, 15 October 1968, p. 1708.
687 File note by Court, 30 May 1969, DID file 85/68 vol 1.
688 Comments by Russell Madigan, Managing Director, Hamersley Iron, in letter to Court, 12 January 1970 (DID file 78/70, folios 17-20). In summary he said that the gas based processes tended to be inefficient because channeling of the gas caused variable metallization of the iron ore. Also the low temperatures used meant the product was very reactive and needed treatment if it was going to be transported. Because of these and other problems Hamersley Iron saw gas based processes being more suited to use at the steel plant and coal based
Just why Court was so confident that Hamersley Iron would proceed with MA (and why Hamersley Iron would agree to such an early production date) can be seen from the interactions he had been having with the company in relation to steel and MA in the period since the Hamersley Range 1963 Agreement had been negotiated.

When Court met with the then Managing Director of Rio Tinto Australia, John Hohnen, in 1966, just three years later, he was told that Hamersley Iron was still (suggesting earlier contacts) confident that MA and steel would be produced by Hamersley Iron. The MA would be in the form of metallised pellets produced at Dampier, but steel would be produced at Kwinana as any other location would result in long delays in establishing steelmaking.689

Court met with Hamersley Iron in February 1967 and was told that steel production in Dampier was not economic and that the economics heavily favoured production in the eastern states. However there was a case seen for the production of metallised pellets at Dampier.690 Court went to Cabinet in August of that year and provided these same views in relation to steel and MA. However he told Cabinet that Kwinana and Warnbro were not out of the question and he still had the objective of seeing steelmaking proceed to the steel ingot stage within the state, but accepted that the next stage of having rolling mills was not possible.691

When commenting on an announcement692 by Hamersley Iron in September 1967 of a new iron ore export contract with Japan, Court noted that the company was moving ahead with research into MA production.693 He said he was confident that MA would be produced by the company many years ahead of its agreement commitments.694 Soon after Court had a telephone conversation with the Managing Director of Rio Tinto, Sir Maurice Mawby, in which he was informed that MA was being seen as a product in its own right and as an alternative to the production of steel by Hamersley Iron.695 In mid-1968 Court recorded on file that Hamersley Iron was doing pilot plant work in Germany and large scale test work in being suitable at the minesite. The higher temperatures in the coal process meant the MA was not reactive and suitable for long distance transportation.

689 File note by Court, 18 December 1966, DID file 251/66.
690 Memo from Court to Premier Brand, 25 May 1967, DID file 85/68 vol 1.
693 Press Statement by Court as Minister for Industrial Development, 8 September, 1967, DID file 251/66.
694 Ibid.
695 File note by Court, 4 November 1967, DID file 85/68 vol 1.
Canada on MA production. Court was told that Hamersley Iron would meet the MA production target date of 1972 that had been set by Court. Given these interactions with the Hamersley Iron and Rio Tinto, Court would have felt that his comments in Parliament (see above) in 1968 were well justified.

Meeting the agreement obligation for metallised agglomerates

The mining lease for Paraburdoo was issued under the agreement in June 1970. This meant that proposals for MA were due in 1972, which was two years later than was expected at the time that the Hamersley Range 1968 Agreement was before Parliament. This meant that the expectations by Court of MA production in 1972 had now become 1974. As will be seen below this expectation was also not met.

There was a press report in October 1968 that Hamersley Iron had plans to build two 600 000t/a capacity kilns designed to produce MA as EAF feed and had taken European, US and Japanese steel producers to observe trials in Canada of MA production and use. But the problem for MA of competing with scrap came through in the comment that the Japanese steelmakers wanted a price lower than scrap to apply to MA, despite the better performance of MA in the EAF and MA being more convenient to transport and use.

In December 1969 Court recorded that Hamersley Iron was planning to make MA in the Pilbara by 1972/73. While Pilbara steel was still seen by the company as being out of the question, it thought steel could be produced in the SW by 1974 from a plant with 500 000t/a capacity using MA as feedstock. These concepts were reinforced in January 1970 when the company wrote to Court requesting an allocation of land at Kwinana for an electric arc steelmaking plant that would use MA produced in Dampier. There was also a ‘bullish’ press article in March 1970 about the company looking to produce 4.2mt/a of MA from 3

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696 File note by Court of discussion with Sir Val Duncan, 20 June 1968, DID file 85/68 vol 1.
697 Appendix A to department brief to Minister, 3 January 1975 (DID file 78/70, folio 206). With the Agreement in place in late 1968 (assented to 12 November 1968) there was only a short time before mining proposals were due (31 December 1968). The approval of the proposals allowed the issue of a mining lease under the Agreement. The year of issue became the year that dates in the agreement for mining to commence and proposals for MA to be submitted of issue were established from. In the event the mining proposals were not approved until January 1970, which had implications for the MA timings.
699 Ibid.
700 File note by Court of discussion with Madigan, 15 December 1969, DID file 78/70, folios 3, 4.
plants at Dampier, with 1.4mt capacity being in place by 1975.\textsuperscript{702} This was followed by further press reports in December 1970 of the formation of a Hamersley Iron lead consortium to develop a MA plant in the Pilbara.\textsuperscript{703} The initial plant would have 1.4mt/a capacity, commence production in 1973 and be located at Dampier. But it was commented that there were no contracts for the product and concerns over pricing as customers wanted MA to be priced like scrap. CRA later reported that preliminary design and engineering had been completed for a coal based MA plant at Dampier and the use of the recently discovered natural gas offshore from Dampier was being investigated as an alternative to coal.\textsuperscript{704}

Despite these promising signs when the proposals date fell due in 1972, Hamersley Iron wrote to the Agreement Minister, Herb Graham, seeking a 3 year extension of time for MA proposals to 31 December 1975.\textsuperscript{705} Hamersley Iron outlined its work from 1965 on MA, including pilot plant work in Germany, large scale testing in Canada, shipment of product from Canada to Japan to confirm suitability for shipping and EAF feed tests in Japan. Preliminary engineering was also done for a Dampier plant to produce 1.4mt/a of MA. In total the company had spent over $3 million on its investigations. The company noted that the two existing commercial SLRN plants in NZ (nominal capacity 150 000 tons) and Canada (300 000 tons), had operated well under capacity (50% or less) and made large operating losses. This raised doubts about the technical and economic viability of the larger kilns proposed by Hamersley Iron. The company had suspended further work on an SLRN plant until the commercial success of the technology could be demonstrated. Hamersley Iron was also considering gas based processes following the discovery of gas on the NW shelf and had sent samples of ore for testing. However the technical issues with gas based processes remained un-resolved and the company expected that it would be some time before a gas based plant could be considered for the Pilbara.

Given the issues with the SLRN process and the early stage of development of the gas based processes, a three year deferral request was probably the minimum that would allow for a technology choice to be made. Even this would have required rapid resolution of the known


\textsuperscript{704} CRA \textit{Annual Report 1971}, page 8.

\textsuperscript{705} Letter from Hamersley Iron to Graham, 2 August 1972, DID file 78/70.
technical issues to allow enough time for a commercial plant to be shown to be feasible and economic before proposals were due.

Graham wrote to the company in September 1972, acknowledging the concerns of Hamersley Iron with the poor performance of SLRN kilns and noting the desire of Hamersley Iron to look at gas based processes over next 3 years. The briefing note from the department supported the company view of the SLRN process and referred to information obtained from NZ that further supported the view. The requested three year extension was granted by Graham in January 1973 in return for annual reporting by Hamersley Iron on work being done towards meeting the MA obligation.

The first report was submitted in February 1974. This dealt mainly with prospects for the use of gas based processes. The report noted that the SLRN plant in Canada was closed down during the year and the NZ plant (processing iron sands) continued to operate under capacity (75%). The second report (December 1974) foreshadowed a major review of all processing options. Hamersley Iron subsequently indicated that the review would consider pellet, MA and steel production at number of WA locations to determine the best way to meet its obligations from both a technical and economic point of view. Interest continued in the production of MA as it had advantages over semi-finished steel production for export. The gas based processes for MA production were considered to be promising and would be considered further, but the SLRN process was essentially ruled out of consideration.

The review was completed in late 1975 and the results were presented to Premier Court and Minister Mensaros in a meeting on 27 November. In a briefing note for the meeting the department said it understood that the review results were not encouraging. Mention was

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706 Letter from Graham to Hamersley Iron, 14 September 1972, DID file 78/70, folios 126-128.
707 Briefing note from department to Minister, 12 September 1972, DID file 78/70, folios 126-128.
708 File note by department (letter not located on file but referenced in file note), 23 April 1975, DID file 50/75, folio 97.
712 Notes of 27 November 1975 meeting with Hamersley Iron prepared by department, DID file 50/75, folios 291-293. The government had changed at the 1974 election and Court was now Premier and Mensaros was the Agreement Minister.
713 Briefing note from department for Premier Court and Minister Mensarios, “CRA/Hamersley Processing Studies”, undated, DID file 50/75, folios 284-287.
made of a beneficiation plant at Tom Price that the company might look to use to offset processing obligations. This was thought to be a basis for an extension of time rather than a means to meet obligations. Department notes of the meeting record Court as agreeing that MA had not lived up to expectations and that consideration would have to be given to the restructuring of processing obligations.714 In a letter to Mensaros after the meeting, the company requested a 12 month extension of time for proposals (to end 1976) in recognition of the work that had been done in the review.715 In that letter reference was made to the November presentation, which was stated as showing that there was no technology available to economically produce MA from company ores.

Concentration (Beneficiation) Plant as partial offset for MA production

The table below provides a summary of the negotiations that went on between the state and Hamersley Iron in late 1975 through to late 1976 in response to the company conclusion (above) in relation to MA economics and request for a 12 month extension of time. At that time the company had a 1mt/a MA obligation under the Mount Bruce 1972 Agreement that was due in 1978716 and the first 1mt/a of an ultimate 3mt/a MA obligation had fallen due under the Hamersley Range 1968 Agreement. Both were now under discussion. The negotiations were completed in just over 6 months and saw both sides give ground in order to reach agreement so that Mensaros could seek cabinet approval (obtained early October 1976) for the required agreement changes. These changes were considered earlier in this thesis (chapter 4, part 2) and are not discussed further here.

Table 7.1 Summary of negotiations between state and Hamersley Iron late 1975 to late 1976

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Participants</th>
<th>Outcome</th>
<th>Ref</th>
</tr>
</thead>
<tbody>
<tr>
<td>22/12/75</td>
<td>meeting</td>
<td>Court and Madigan</td>
<td>Agreed MA not practical. Madigan suggests 7mt/a concentrator; 2mt/a to meet 1mt/a of Mount Bruce 1972 Agreement MA; 4mt/a to meet 2mt/a of Hamersley Range 1968 Agreement MA. Court reserves position on first and rejects second other than as a basis for deferral. Agreed 3 month deferral to allow further discussions.</td>
<td>717</td>
</tr>
</tbody>
</table>

714 Notes of meeting by department, 27 November 1975, DID file 50/75, folios 291-293.
716 Agreement scheduled to Iron Ore (Mount Bruce) Agreement Act, No 37 of 1972, clause 10.
717 Court’s notes of meeting with Madigan, 22 December 1975, DID file 228/76 vol 1.
<table>
<thead>
<tr>
<th>Date</th>
<th>Type</th>
<th>From</th>
<th>To</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>29/12/75</td>
<td>Letter</td>
<td>Madigan to</td>
<td>Court</td>
<td>8mt/a concentrator at Tom Price for 1mt/a of Mount Bruce 1972 Agreement MA with a to be agreed amount of the Hamersley Range 1968 Agreement MA, with first proposals for balance of MA due 1980 plus a 6 year extension of date for MA/steel choice under the Mount Bruce 1972 Agreement.</td>
</tr>
<tr>
<td>19/1/76</td>
<td>Letter</td>
<td>Mensaros to</td>
<td>Madigan</td>
<td>Four month extension of time granted. Proposed restructure of MA obligations in return for concentrator plant.</td>
</tr>
<tr>
<td>30/1/1976</td>
<td>Meeting</td>
<td>Mensaros and</td>
<td>Stewart (now MD</td>
<td>Agreed that the processing obligations for MA would be restructured. Also agreed that proposals would be submitted by 31 December 1976 for an 8mt/a beneficiation (concentrator) plant at Tom Price.</td>
</tr>
<tr>
<td>13/4/76</td>
<td>Letter</td>
<td>Stewart to</td>
<td>Mensaros</td>
<td>Proposed that the establishment of a 10mt/a beneficiation plant (to be in operation in January 1981) would meet both the Mount Bruce 1972 Agreement obligation for 1mt/a of MA and the Hamersley Range 1968 Agreement obligation for the initial 1mt/a of MA. Also the state would agree that expansion of the beneficiation plant would be accepted as an alternative to the remaining 2mt/a MA if MA did not prove feasible. State would also agree to change the date for the selection of MA or steel under the Mount Bruce 1972 Agreement from a fixed date to one that depended on the MA plant being in operation for 1 year.</td>
</tr>
<tr>
<td>29/6/1976</td>
<td>Letter</td>
<td>Mensaros to</td>
<td>Stewart</td>
<td>Agreed to beneficiation plant meeting Mount Bruce 1972 Agreement MA obligation. Did not agree to any concession on Hamersley Range 1968 Agreement MA obligation. Agreed that MA/steel choice under Mount Bruce 1972 Agreement could be linked to production date for MA under Hamersley Range 1968 Agreement.</td>
</tr>
<tr>
<td>14/7/76</td>
<td>Letter</td>
<td>Stewart to</td>
<td>Mensaros</td>
<td>Continued to argue for both MA obligations to be met by beneficiation plant</td>
</tr>
<tr>
<td>20/7/76</td>
<td>Letter</td>
<td>Mensaros</td>
<td></td>
<td>Agreed to changes to both MA obligations in</td>
</tr>
</tbody>
</table>

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718 Letter from Madigan to Court, 29 December 1975, DID file 50/75, folio 395.
720 Departmental notes of meeting between Mensaros and Stewart, Hamersley Iron, 30 January 1976, DID file 50/75, folio 373.
722 Letter from Mensaros to Stewart, 29 June 1976, DID file 228/76 vol 1, folios 50-52.
723 Letter from Stewart, to Mensaros, 14 July 1976, DID file 228/76 vol 1, folios 63-66.
724 Letter from Mensaros to Stewart, 20 July 1976, DID file 228/76 vol 1, folios 69.2, 69.3.
to Stewart

return to beneficiation plant starting up in late 1978 compared to January 1981. Confirmed agreement to tying MA/steel choice under Mount Bruce 1972 to production date for MA.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>17/8/76</td>
<td>Letter</td>
<td>Stewart to Mensaros Accepted Minister’s offer in 20/7/76 letter</td>
</tr>
<tr>
<td>4/10/76</td>
<td>Cabinet minute</td>
<td>Mensaros to Premier Obtained Cabinet approval for negotiated outcome with Hamersley Iron</td>
</tr>
</tbody>
</table>

Conclusions

In 1968 Hamersley Iron took on obligations in the Hamersley Range 1968 Agreement for the production of 3mt/a of MA, with proposals to be submitted for the first one million tons in 1972, second in 1977 and third in 1980. This was in return for the rights to develop the Paraburdoo deposits. At that time there was considerable interest in MA as a processing option in place of steel. Hamersley Iron was very active in considering the production of MA and certainly encouraged the state’s expectations of early MA production in the Pilbara using a coal based process. However the failure of the SLRN (coal) process technology meant that the company could not live up to the expectations it had a major part in creating.

By the end of 1975 both sides had come to the view that the best MA technology would be one using natural gas, where a number of gas based processes were being developed. This required that natural gas was available in the Pilbara, which was not the case in 1975. While significant amounts of gas had been found offshore from the Pilbara, Hamersley Iron did not see iron ore industry demand (even including MA), as being sufficient to support the field development costs. Its view was that it would require other large gas users or the establishment of LNG production for export in the Pilbara for gas to be available for MA. This was seen as something that would not happen until the late 1970s or early 1980s. As this pushed the dates for MA well beyond those contemplated in the agreements there was no prospect of proposals being submitted in the near term. The state and Hamersley Iron could have decided to continue to defer the MA obligations as both sides were really in agreement that it would be some time before MA production would be possible. But at the time the

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725 Letter from Hamersley Iron to Mensaros, 17 August 1976, DID file 228/76 vol 1, folios 124, 125.

728 In the end gas was available in the Pilbara from 1984 with the development of the domestic gas phase of the North West Shelf project.
company had something to offer the state; a concentrator plant that was surely worth something in terms of processing obligations.

The state would have been hard pressed to argue that the concentrator plant in itself was not processing iron ores. On this ground alone it was always going to be able accept the plant as discharging the Mount Bruce 1972 Agreement concentrate/MA obligation. In addition the state had always argued for companies to use all of the resource, not just the direct shipping ores and the concentrator would make unsaleable ores suitable for sale. It was therefore a reasonable expectation from the company that it would receive some concessions for a concentrator plant. It was also not surprising that the state would be amenable to the suggestion, which left the question of what the concentrator was worth up for negotiation between the parties, as seen above.

What Hamersley Iron did obtain in the negotiations was an extinguishment of a Mount Bruce 1972 Agreement obligation for concentrate/MA and part of a Hamersley Range 1968 Agreement obligation for MA. While the state was happy to accept the concentrator for the Mount Bruce 1972 obligation, it initially argued against the request for extinguishment of the Hamersley Range 1968 Agreement MA obligation as well.

Just why Mensaros changed his mind and agreed at a late stage of the negotiations to the part MA obligation extinguishment, rather than give an extension of time while keeping the obligation whole, is not clear. However it was consistent with the recorded view of Court (after his meeting with Madigan in December 1975) where he thought that 5mt/a of concentrate could substitute for 1mt/a of MA, provided the full plant capacity also met the 2mt/a of concentrate requirement in the Mount Bruce 1972 Agreement. The file indicates that Mensaros was aware of the meeting and of Court’s view so perhaps he decided to fall in line or Court intervened.

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729 For example, see comments by Court in response to HI presentation on 1975 studies where he said to HI that the state government was in favour of more extensive upgrading of low grade ores (DID file 50/75, folio 291).

730 Court comments in Tokyo after meeting Nippon Steel quoted in “Hamersley to upgrade operations”, The Sunday Times, 7 March 1976, DID file 50/75, folio 398.

731 Court’s notes of meeting with Madigan, 22 December 1975 (DID file 228/76 vol 1) and letter from Mensaros to Stewart, 29 June 1976 (DID file 228/76 vol 1, folios 50-52).

732 Letter from Mensaros to Stewart, 20 July 1976, DID file 228/76 vol 1, folios 69.2, 69.3.

733 Court’s notes of meeting with Madigan, 22 December 1975, DID file 228/76 vol 1.

734 Ibid.
What can be said at the end is that the state was agreeable to Hamersley Iron using the concentrator plant as the means to gain the extinguishment of some of its processing obligations. What obligations were impacted came out of the negotiations and while each side tried to maximize its position the negotiations were completed very quickly and on what appeared to be amicable terms. The agreed arrangements were included in the 1976 variations to the 1968 and 1972 agreements (see Chapter 4 Part 2). Even after these agreement changes, Hamersley Iron continued to have substantial processing obligations for MA (2mt) under the Hamersley Range 1968 Agreement and for MA (3mt) or steel (1mt) under the Mount Bruce 1972 Agreement. The next test would come when the first MA obligation fell due on 13 August 1980; which was for the submission of proposals for one mt/a of MA capacity under the Hamersley Range 1968 Agreement.
Part 3

Metallised Agglomerates post 1976 Agreement Variations

Progress between Coalition government and Hamersley Iron to 1982

The 1976 Agreement variations discussed in Part 2 reset the times for the MA obligations and reduced them to 2mt/a from the original 3mt/a. Proposals for 1mt/a of MA were now due in August 1980.

Hamersley Iron wrote to Minister Jones in September 1980 requesting a 12 month deferral for the submission of MA proposals due in August 1980.\(^{735}\) The letter indicated that, while gas based MA processes were still being considered, the company was considering alternative investments that could substitute for MA.\(^{736}\) The department provided advice to Jones that rejected the pellet plant suggestion and cautioned against accepting electrification as it was not related to processing and would open up the way for other producers with obligations to argue for similarly un-related activities to be accepted in place of processing.\(^{737}\)

Jones wrote to the company in October requesting further information in relation to gas pricing and alternative investments.\(^{738}\) The company replied in December with a discouraging market outlook for MA and showing that a gas price of price of A$1.50 per MBTU was required compared to the Pilbara gas price of A$3 per MBTU.\(^{739}\) Jones subsequently wrote to the company in May 1981 agreeing to a one year extension of the MA obligation (to August 1981).\(^{740}\)

The company wrote to Jones in August 1981 requesting a six year deferral of the MA obligation and only proposed to maintain a watching brief on MA.\(^{741}\) Jones went to Cabinet in February 1982, advising that CRA (as the now parent company of Hamersley Iron) was

\(^{735}\) Letter from Barlow, Managing Director of Hamersley Iron, to Minister Jones, 4 September 1980, DID file 30/77 vol 2.
\(^{736}\) The investments mentioned were re-commissioning of the recently closed Dampier pellet plant to produce high grade pellets and electrification of its Pilbara railway.
\(^{737}\) Minute from DID Co-ordinator, Gorham, to Jones, 3 October 1980, DID file 30/77 vol 2. While not mentioned by the department, this advice probably had in mind the requirement in the Hamersley Range 1968 Agreement, No 48 of 1968, Clause 10(4)(b) that, where MA was found to be uneconomic, the Minister and the company were to agree on a substitute obligation that was related directly to the mining and metallurgical industry and the precedent that already created in terms of ‘relaxing’ obligations.
\(^{738}\) Letter from Jones to Barlow, 14 October 1980, DID file 30/77 vol 2.
\(^{739}\) Letter from Barlow to Jones, 4 December 1980, DID file 30/77 vol 2.
\(^{740}\) Letter from Jones to Barlow, 21 May 1981, DID file 30/77 vol 2.
\(^{741}\) Letter from Barlow to Jones, 31 August 1981, DID file 30/77 vol 2.
seeking a deferral and ‘consideration from the state in connection with the Hamersley Iron processing commitments’ in return for investing in a silicon metal plant at Wundowie and taking an option to invest in the recently suspended vanadium plant at the same location.\textsuperscript{742}

He recommended (and cabinet accepted) that only limited changes to the MA obligations and their timing be offered. Jones then wrote offering that, if CRA was prepared to take 50\% equity in a proposed silicon project at Wundowie and enter an option to take 50\% interest in the recently mothballed vanadium plant, the state would agree to reduce the initial MA obligation to 0.5mt/a, with proposals due in January 1984 and extend all subsequent MA obligation dates to match.\textsuperscript{743}

The company responded in March 1982 stating that CRA had decided not to proceed with the silicon and vanadium projects and renewing the request for a six year extension.\textsuperscript{744} Jones subsequently wrote to the company in December 1982 giving only a three year extension of time from 12 August 1981 to 12 August 1984.\textsuperscript{745} This was the last action by the coalition government before the 1983 election which saw the Coalition lose to the Labor Party and a new government to deal with the next deadline. MA had now gone from a thought to be near certain processing success in 1970 to a slim chance at best 12 years later.

**Progress between Labor government and Hamersley Iron 1983 to 1987**

The new Labor government under Brian Burke came into office at the February 1983 election. The deadline for MA proposals of August 1984 came without the submission of proposals and there was no evidence found on the files of any discussions before this date. At a meeting between the Minister (David Parker) and Hamersley Iron (Barlow) at the end of August 1984 the company confirmed its view that MA was not economic.\textsuperscript{746} The parties discussed the company making investments in power in the Pilbara as part of receiving a further deferral of the MA obligations. There was also discussion about the CRA investment in new steelmaking technology being developed in Germany and the possibility that a

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\textsuperscript{742} Cabinet minute from Jones, 12 February 1982, and approved by Cabinet on 15 February 1982, DID file 30/77 vol 2.

\textsuperscript{743} Letter from Jones to Burston, Managing Director of Hamersley Iron, 17 February 1982, DID file 30/77 vol 2.

\textsuperscript{744} Letter from Barlow to Minister, 5 March 1981, DID file 30/77 vol 2.

\textsuperscript{745} Letter from Minister to Barlow, 20 December 1982, DID file 30/77 vol 2, folios 335, 336.

\textsuperscript{746} File note of meeting on 31 August 1984 between Minister Parker and Barlow, 20 September 1984, DID file 30/77 vol 2, folios 369-373.
demonstration plant could be built in WA.\textsuperscript{747} The company followed up the meeting with a letter requesting an extension of time to 1 April 1985.\textsuperscript{748} Parker agreed, without comment, to this extension in October 1984.\textsuperscript{749}

At a meeting between the company and the Minister in November 1984 the company claimed that MA would never be viable and that it preferred to direct its efforts towards the development of the new steelmaking technology.\textsuperscript{750} As a result the company was prepared to look to alternative investments in place of the MA obligation and to select steel under the Mount Bruce 1972 Agreement with a proposals date of 1 April 1991.\textsuperscript{751} In the meantime it was looking at MA deferrals in return for capital investments in the Pilbara. Parker said that he would not provide discharges of the MA obligations in return for investments in works that were not related to processing. He did encourage the establishment of a new steelmaking technology plant in the state.

The company sent a letter in December 1984 that outlined a proposal that Barlow was prepared to take to the company Board, with the agreement of the Minister.\textsuperscript{752} This consisted of investments in the Pilbara\textsuperscript{753} in return for the discharge of the MA obligations and the selection of steel under the Mount Bruce 1972 Agreement, with a 2 year extension of the proposals date of 1 April 1991 while the dates to produce steel would remain the same. Barlow confirmed that the development of new steelmaking technology was now the focus for the company and the first commercial plant could be built in a WA location. This triggered an extensive series of negotiations and discussions between the company and Parker and the department as recorded on file.\textsuperscript{754} These effectively ended in February 1987 when

\textsuperscript{747} However the earliest a decision could be made by the company on the technology would be after 18 months of operations of the German pilot plant. This was expected to commence in September 1984, which put proposals beyond March 1986.

\textsuperscript{748} Letter from Barlow to Parker, 12 September 1984, DID file 30/77 vol 2, folio 367.

\textsuperscript{749} Letter from Parker to Barlow, 20 August 1984, DID file 30/77, vol 2, folio 377. The letter and extension date were probably expected as an outcome of the August meeting since it was the date on the table at the meeting.

\textsuperscript{750} File note of meeting between Parker and Barlow on 30 November 1984, DID file 30/77 vol 2.

\textsuperscript{751} The then proposals date in the agreement was 30 June 1989.

\textsuperscript{752} Letter from Barlow to Parker, 7 December 1984, DID file 30/77 vol 2, folios 403 to 405.

\textsuperscript{753} Expansion of Hamersley Iron's generating plant at Dampier using gas purchased from SECWA and the sale of power to SECWA for distribution in the Pilbara; and stockpile and port upgrading works at East intercourse Island.

\textsuperscript{754} Letter from department to Barlow, 10 June 1985, DID file 30/77 vol 2, folio 450; Letter Barlow to Parker, 31 July 1985, DID file 30/77 vol 2, folio 477; Letter from Parker to Barlow, 20 August 1985, DID file 30/77 vol 2, folio 481; Letter from Barlow to Parker, 28 October 1985, DID file 30/77 vol 3; Letter from Parker to Barlow, 20 May 1986, DID file 30/77 vol 4; Letter from Parker to Carnegie, 20 May 1986, DID file 30/77 vol 4; Letter from Barlow to Parker, 5 June 1986, DID file 30/77 vol 4; Letter from Karpin, Director, Hamersley Iron, to
the department sent draft agreements to the company that were close in content to the agreements as later ratified by Parliament. Extensions of time were given to keep the MA proposals date ‘live’ during the negotiations. A number of possible investments that would provide a basis for extensions or extinguishments of the MA obligation were considered in this negotiation period. The company also tried to have the state accept that a commercial steelmaking technology plant would extinguish the steelmaking obligations under the Mount Bruce 1972 Agreement.

By early 1987 the discussions and negotiations flowing on from the 1976 amendments to the processing obligations had arrived at the point where there were going to be further amendments to the Hamersley Range 1968 MA and the Mount Bruce 1972 Agreement steel obligations. The expectation of the parties was that the MA and steel obligations would most likely be met by alternative investments, including new steelmaking technology plants. Both sides had high hopes that the new steelmaking technology would be successfully developed by CRA and used in plants to be built in WA.

1987 amendments to Hamersley Range 1968 and Mount Bruce 1972 Agreements

In June 1987 Parker announced that variations to the Hamersley Range 1963 and 1968 and Mount Bruce 1972 Agreements had been introduced to Parliament. He said that the changes would provide greater flexibility for the company by widening the investment possibilities that it could use to meet its obligations where the existing obligations were not feasible. This was required because the downturn in the world steel industry had made the
existing commitments unrealistic. Parker noted that the state wanted to maintain the intent of
the obligations, which he interpreted as having the iron ore companies invest ‘in the state’s
future by developing their operations to produce a higher value product’.

This statement regarding the intent of the obligations shows the evolution of the state’s
position since Hamersley Range 1963 Agreement was ratified. In 1963 the company was
expected to undertake secondary processing and steel. If it did not, then other parties who
were prepared to do so could take over the obligation and the company would lose the
agreement, and all of its assets on agreement lands, to the state without compensation.759 At
the time the company took a more conservative view by stating that its objectives were to
establish mining and secondary processing and had no immediate plans to move to steel as
that obligation was twenty years away and would receive company attention ‘at an
appropriate time’.760

Soon after Parker’s statement CRA announced the establishment of a research facility with an
initial investment of $10 million.761 The facility would be in operation by the end of 1988.
No mention was made of any link to the agreements although the facility was the major
benefit the state received for extending the MA obligation from August 1984 (proposals date
from the commencement of the new government in 1983) to August 1988 (proposals date
contained in 1987 agreement variations).

The details of the amendments have been discussed in Chapter 4 Part 2 and will not be
considered further here. However Parker summed up the position after the variations were in
place as;

…enabling the company to continue to pursue its iron ore processing initiatives [and
enabling] Hamersley to come forward…with economically feasible projects in the
event that the iron ore processing obligations are not feasible within [the agreement
timeframes]. 762

761 Media statement by CRA, 25 June 1987, DID file 30/77 vol 6. Document obtained by FOI application,
762 Parker, WAPD, 4 June 1987, p. 1886.
The Minister also noted the work that CRA was undertaking in Germany to develop new steel making technology that would have less pollution and be more less capital intensive than conventional steel technology. He saw this as evidence of the *bona fides* of CRA towards establishing steel making in WA and commented that the new dates took into account the development of this new technology by CRA.

The test of these new arrangements would not be long in coming as proposals for the first mt/a of MA capacity were due by 1 October 1988, just under 15 months after the amendments were introduced to parliament. Given the known views of both sides about the economics of MA there would have been low expectations on both sides of MA proposals being submitted and high expectations that the company would look to use the alternative investment provisions in the agreement.

**Events post 1987 Agreement Amendments**

The company wrote to Parker in September 1988 stating that, following a re-evaluation of the economics of production in the Pilbara and Kwinana, the conclusion was reached that a 1mt/a MA plant was not economically feasible in either location. The company gave the required notice of this finding under the clause 10(1) of the Hamersley Range Agreement 1963. If Parker agreed, then the company would no longer have any obligation to submit proposals for 1 mt/a of MA; essentially the state would have given up forever on that prospect. The company would have to investigate potential alternative investments and then submit proposals for alternative investments for approval to be implemented in place of the MA obligation. There could be a succession of alternative investments over time as the discharge of the obligation required that those investments ‘represent economic development in the state approximately equivalent’ to the MA obligation that they replaced.

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763 Ibid, p. 1889.
765 New clauses 9 and 10 to be inserted in Iron Ore (Hamersley Range) 1968 Agreement as set out in Iron Ore (Hamersley Range) Agreement Amendment Act, No 27 of 1987, clause 5(3).
766 Ibid, clause 10(2).
767 Ibid, clause 10(4)(a).
768 Ibid, clauses 10(6) and (7).
769 Ibid, clause 10(8).
770 Ibid, clause 10(4)(b).
The issue for Parker, if he was to agree to the company request, was that the 1 mt/a MA obligation, with a specific timing, disappeared.\footnote{The obligation for proposals to be submitted on 1 October 1991 for the second million tonnes of MA capacity under clause 9(1) remained in place and would be governed by the same provisions if the company wanted to go down the alternative investment path when the proposals were due.} It would be replaced by a process where there was no specific requirement or timing for the submission of proposals and no end point as the company could keep studying alternatives forever and the agreement provisions kept rolling over. Parker could avoid this by having a company commitment to implement an agreed alternative before he agreed to the company request. Otherwise he risked losing something specific (submission of proposals for MA) and gaining something vague that gave him little power to require performance by the company. So the decision on the company’s request would be a most significant decision by the Minister.

Parker wrote to the company in December requesting information on iron carbide\footnote{Iron carbide is a form of partially reduced iron that could be fed to electric arc furnaces. In MA iron oxide was reduced (oxygen removed) to iron metal and carbon dioxide. Iron carbide is a compound of iron and carbon formed by partial reduction of iron oxide. One major advantage was that it is not reactive to oxygen in air. The iron carbide process used natural gas to reduce the iron oxides in the iron ore.} economics, presumably considering this could be an alternative investment to MA that the company could commit to before he agreed to the request.\footnote{The letter and any papers on file leading up to the letter and from then on are not available as the file is not open to the public. Some papers were obtained through FOI and the rest of this section is ‘constructed’ from those papers. Parker’s letter is referred to in a letter from O’Leary to Parker, 28 December 1988, DID file 30/77 vol 6 obtained by FOI application.} The company responded in December and said that the best prospect seen for adding value to its ores was the new steelmaking technology based on the CRA work in Germany.\footnote{Letter from O’Leary to Parker, 28 December 1988, DID file 30/77 vol 6. Document obtained by FOI application.} The company also pointed out a range of issues with the iron carbide technology and concluded that the process was unlikely to be economic and that the product would have the same marketing problems as were being seen with MA.

Parker responded to the Company letter agreeing under clause 10(2) that MA was not economic.\footnote{Letter Parker to O’Leary of 29 December 1988 referred to in letter from O’Leary to Parker, 27 February 1989, DID file 30/77 vol 7. Document obtained by FOI application.} He did this without having any commitment by the company to implement an alternative investment and so crystallised the uncertain situation outlined above for the state.
The first step in this new process was for the company to submit a programme to identify and investigate alternative investments by the end of February 1989. In the same letter iron carbide was ruled out as an alternative investment as not being economically viable. The Acting Minister, Berinson, responded in April 1989 stating that the information provided was inadequate for a decision to be made on the acceptability of the project as an alternative investment, but gave an initial government reaction against the project being accepted. He also kept alive the prospects for iron carbide and indicated that the state was interested in seeing a large scale pilot plant of the HIsmelt iron making technology located in WA. He closed by inviting the company to have discussions with the Minister before submitting a detailed programme under the agreement.

Hamersley Iron wrote to Parker (following a meeting with him) confirming that it would build a large scale HIsmelt pilot plant at Kwinana on the understanding that its commissioning would be accepted as discharging the company’s entire 2mt/a MA obligation. Parker responded in June agreeing to accept the HIsmelt plant as an alternative investment that would discharge the agreement MA obligations in full. Soon after this Parker announced the possible establishment of a HIsmelt plant at Kwinana and at a joint state/company press conference held on 22 June stated that the HIsmelt plant to be built at Kwinana would relieve the company of its MA obligations, but not its steel obligations.

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776 See new clause 10(6) to be inserted in Iron Ore (Hamersley Range) 1968 Agreement as set out in Iron Ore (Hamersley Range) Agreement Amendment Act, No 27 of 1987, clause 5(3).
778 This was the trademark name given to the direct steelmaking technology that had been developed in Germany by CRA and is used from here on to describe that technology.
779 Letter from Berinson to O’Leary, 24 April 1989, DID file 30/77 vol 7. Document obtained by FOI application. The response from Berinson was appropriate given the requirements of clause 10(6) for the submission of a detailed programme. The programme in the company letter of 27 February 1989 letter was minimalist at best giving a brief project outline and timetable for investigations. There was no assessment in the letter of the extent to which the project would meet the test in the agreement that it would ‘represent economic development within the state equivalent to the metallising operation’ and very little information in relation to the project. The agreement also contemplated that the Minister may be able to choose between alternatives, but the letter simply said that an (unspecified) number of (unidentified) projects had been considered and only the one in the letter was potentially suitable and viable.
783 Transcript of Press Conference given by Parker and Keogh (CRA) for HIsmelt R&D programme, 22 June 1989, DRD file 50/89 vol 1. Document obtained by FOI application.
Construction commenced in 1991 and the plant operated until May 1999, when it was placed on care and maintenance at the completion of the planned trials.\textsuperscript{784} This period of operation would have included commissioning which would have met the requirement for the discharge of the company’s remaining 2mt/a MA obligations under the Hamersley Range 1968 Agreement.

**Summary and Conclusions**

By the time that the first proposals under the 1976 agreement arrangements were due (1980), Hamersley Iron had decided that MA, whether based on gas or coal, would not be economic in the Pilbara and opened discussions with the Minister on alternative investments that could meet the MA obligations. This was followed by protracted negotiations as described above (with a change of government in the middle) that saw amendments in 1987 to the 1968 Agreement. These reset the date for first MA proposals to 1988 (now 16 years later than the 1972 date set in 1968) and widened the scope of what could be accepted as alternative investments.

After the new MA date came due in 1988, the company argued the case for the triggering of the alternative investment provisions inserted into the agreement in 1987.\textsuperscript{785} The Minister (Parker) accepted company arguments that MA was not economic and agreed to proceed down the alternative investments route.\textsuperscript{786} Following negotiations over what might be suitable alternative investments Parker agreed to extinguish the MA obligation (not just the 1mt/a that had fallen due) in return for the building of a large scale HIs melt pilot (commonly referred to as a demonstration) plant at Kwinana.

This brought to an end a process around MA obligations that begun with the entry of the company into the Hanwright 1968 Agreement and the negotiation of the Hamersley Range 1968 Agreement. Under those agreements the state would have expected to have had 3 mt/a of MA and 3mt/a of pellets (or 0.5mt/a of pellets and an additional 1mt/a of MA) in place by around 1980. What the state obtained was a concentrator in the Pilbara in 1979\textsuperscript{787} and a large

\textsuperscript{784} Public Environment Review for Commercial HIs melt Plant, April 2002, Hamersley Iron, p. 1-5 section 1.2 History of the HIs melt Process.
\textsuperscript{785} Letter O’Leary, Managing Director, Hamersley Iron, to Parker, 29 September 1988, DID file 30/77 vol 6. Document obtained by FOI application.
\textsuperscript{786} Letter Parker to O’Leary, 29 December 1988 referred to in letter from O’Leary to Parker, 27 February 1989, DID file 30/77 vol 7. Document obtained by FOI application.
\textsuperscript{787} Chapter 7 Part 2.
scale HIsmelt pilot plant at Kwinana in 1991. While the concentrator may have been better than a fair exchange, HIsmelt would seem to have been much less favourable to the state. The cost of the HIsmelt plant was only A$110 million compared to the company’s estimated cost for just a 1mt/a MA plant at Kwinana of A$457 million. Also it was expected to operate for only a short period compared to the economic lifetime of a MA plant (20 plus years).

The HIsmelt plant would not have met the alternative investment requirements to be accepted in place of a 1mt/a MA plant, let alone for the 2 mt/a of MA capacity that was met by the plant. However, great weight may have been placed on the potential of the technology and its implications for future steelmaking in the state. The company certainly made this argument to Parker. At the time the Minister did comment that the technology could revolutionise steelmaking around the world and would enable the direct use of fine ore in steelmaking which could expand the state’s saleable iron ore resources. Also, the technology did not require sinter or pellet or coking plants which reduced capital requirements and pollution. There was another potential benefit in that the technology was thought to be able to use high phosphorus iron ore. This could make the large deposits of this type of ore that were known in the Pilbara saleable through use in HIsmelt plants. Also the technology did not require coking coal which was an advantage in terms of seeing it used on a commercial scale.

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788 Ibid.
791 Letter O’Leary to Parker, 31 May 1989, DID file 30/77 vol 6. Document obtained by FOI application. O’Leary said: ‘…the venture is high risk, but it is one where the potential benefits are also very high…the potential value which this project represents for the state is sufficient to constitute total satisfaction of the company’s secondary processing obligations under the [Hamersley Range 1968] Agreement…the state will be sharing some of the risk associated with developing this exciting technology…[However] there will be a substantial transfer of technology …that will establish the state at the leading edge of iron and steelmaking research…’
793 Ibid.
794 Letter from Carnegie (Chairman, CRA Limited) to Parker, 4 July 1986, DID file 30/77 vol 4 and Transcript of Press Conference given by Parker and Keogh (CRA) on HIsmelt R&D programme, 22 June 1989, DRD file 50/89 vol 1. Documents obtained by FOI application.
in the state.\textsuperscript{795} The lack of coking coal within the state had always been recognized as an impediment to achieving conventional steelmaking in the state.\textsuperscript{796}

In the debate on the 1987 amendments the Deputy Leader of the Opposition made some relevant points when he said:

\textit{Fairly onerous obligations were placed on the companies involved [in the early Agreements] ...to progress these projects to the secondary [processing stage]. It was never anticipated that there would not be changes along the way...and that is exactly what has happened over the years...it is not appropriate for the state to insist upon the same obligations today...Rather than slavishly continuing on that old path, it makes a whole lot of sense to say to these companies 'we will let you out of some of your obligations because they do not appear to be feasible, but we want you to do other things which will be of value to your company and the state and which will approximate in equal value to the state the obligations we are letting you out of'. That is a reasonable way for the state and the companies to negotiate a new position.}\textsuperscript{797}

With these comments in mind, the best interpretation of the events leading up to the acceptance of the large scale HIsmelt pilot plant as discharging the Hamersley Range 1968 Agreement 2mt/a MA obligation is that both sides concluded that it was better to support the development of the new technology rather than keep extending the MA deadlines in the hope that the situation might change for MA. On this basis the parties can be seen as interpreting the agreement requirement for equivalent economic development as having a time dimension that allowed for future benefits to be considered as well as immediate benefits (as represented by capital costs). Even so it would appear to be very generous treatment by the state, given the disparity in capital costs (at least 4 to 1 and probably more like 6 to 1) and the limited time (less than 7 years in the end) that the facility would operate for.

\textsuperscript{795} Transcript of Press Conference given by Parker and Keogh (CRA) on HIsmelt R&D programme, 22 June 1989, DRD file 50/89 vol 1. Document obtained by FOI application.

\textsuperscript{796} For example Court, \textit{WAPD}, 13 November 1960, pp. 2927, 2928 26 September 1963, p. 1423 and 15 October 1963, p. 1679 and preamble (b) and (c) to Agreement scheduled to Broken Hill Proprietary Steel Industry Agreement Act, No 46 of 1952.

\textsuperscript{797} Remarks by Laurence, Deputy Leader of the Opposition, during debate on Iron Ore (Hamersley Range) Agreement Amendment Bill, \textit{WAPD}, 17 June 1987, p 2660.
This review shows that both parties; state (through the Minister) and company, were prepared to accept presently possible developments rather than keep extending dates in the hope that something might turn up so that the obligations could be met in the form as first negotiated. The state took an active role by doing much more than respond to company approaches; at times the state was clearly taking the initiative and pressing the company to respond and at other times took a very critical approach in considering what was being put forward by the company and what the state would give in return. There was no sense that the state was simply going through the motions before giving the company what it wanted. There were strong expectations on the state side that the company would meet its obligations in a way acceptable to the state and never a thought that the obligations should be just set aside and forgotten.

Whether the final outcome represented true value for the state would depend on the future establishment of commercial HIsmelt plants within the state to produce iron and elsewhere to use high phosphorus Pilbara ores, which would expand the saleable resources in, and the market for, Pilbara iron ores. All of this benefit was in the future, and not assured for the state, while the company had already been given a large benefit through the extinguishment of its MA obligations. This is taken up when the meeting of the steel obligations negotiated into the Hamersley Range 1963 Agreement is considered.\textsuperscript{798}

\textsuperscript{798} Chapter 7 Part 4.
Part 4

Discharging the steelmaking obligation

The Agreement Obligation

The Hamersley Range 1963 Agreement had a steelmaking obligation that meant proposals for the first 0.5mt/a of capacity of an ultimate 1mt/a capacity were due in August 1986, 20 years after the first export of iron ore under the agreement (August 1966\textsuperscript{799}), with full production to be reached in 1997.\textsuperscript{800} This obligation was suspended in 1968 and would have been removed by the meeting of obligations under the Hanwright 1968 to produce MA or steel.\textsuperscript{801} These obligations were later transferred to the Mount Bruce 1972 Agreement. The 1987 variations to that agreement removed the choice and only the steel obligation was retained.\textsuperscript{802} The date for steelmaking proposals became 31 December 1991 (5 years later than originally required), with full production to be reached in 1999 (within 8 years of first proposals compared to the originally required 11 years).

Changes made to timing through agreement amendments in 1968

When Hamersley Iron entered the Hanwright 1967 Agreement in 1968,\textsuperscript{803} the Hamersley Range 1963 Agreement was varied at the same time to suspend the steelmaking obligation under the 1963 Agreement unless the obligations under the Hanwright 1967 Agreement to produce MA or steel were not met, when the obligation would revive.\textsuperscript{804} The obligation clauses under the Hanwright 1967 Agreement were not triggered as they required mining proposals to be approved. At the time (1968) the expectation was that proposals would be approved in November 1969.\textsuperscript{805} This would fix the steel proposals date under the Hanwright

\textsuperscript{799} Court, \textit{WAPD}, 15 October 1968, p. 1708.
\textsuperscript{800} Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 24 of 1963, clause 13.
\textsuperscript{801} Ibid, clause 13, and Agreement scheduled to Iron Ore (Hanwright) Agreement, No 48 of 1968, clause 9.
\textsuperscript{802} Agreement scheduled to Iron Ore (Mount Bruce) Agreement, No 26 of 1987, clauses 4(5) and 4(6) and Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 27 of 1987, clause 5(6)
\textsuperscript{803} Agreement scheduled to the Iron Ore (Hanwright) Agreement Act, No 49 of 1968.
\textsuperscript{804} Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 48 of 1968, clause 13.
\textsuperscript{805} The date in the 1967 Agreement was found in clause 7(2) as November 1968. In the 1968 Agreement all dates for proposals were advanced by a year, other than this date. Since the advancing of the other dates meant that the November 1968 date had been overrun, the best interpretation is that an error was made and the November date should have also been advanced by a year.
1967 Agreement at November 1987.\textsuperscript{806} If the steel obligation revived, the date for proposals under the Hamersley Range 1968 Agreement would be one year later at November 1988.\textsuperscript{807}

**Changes made to timing through agreement amendments in 1972**

When the Hanwright 1967 Agreement obligations were transferred to the new Mount Bruce 1972 Agreement\textsuperscript{808} a specific date of 30 June 1978 was set in that agreement for a choice to be made between MA and steel.\textsuperscript{809} This date did not depend on mining approval under the agreement possibly because of the link to the 1963 Agreement steel obligation, which had been triggered by the export of iron ore under that agreement. By fixing the date at 1978, if steel was chosen, first proposals for steel would fall due in 1989 (compared to 1987 under the amended Hanwright 1967 Agreement).\textsuperscript{810} The Hamersley Range 1968 Agreement was varied at the same time to continue the suspension of the steelmaking obligation, but now tied to the Mount Bruce 1972 Agreement, with the date for proposals to be 1990, if revived.\textsuperscript{811}

The 1972 Agreements meant that the 1963 steel obligation had been extended by 3.25 years (first proposals extended from August 1986 to November 1989 if met under the Mount Bruce Agreement) or by 4.25 years if met under the 1963 Agreement. Alternatively, if MA was chosen and implemented under the Mount Bruce 1972 Agreement that would effectively extinguish the 1963 steel obligation 8 years ahead of the 1963 time.\textsuperscript{812}

**Changes made to timing through agreement amendments in 1976**

The Mount Bruce 1972 Agreement was varied in 1976 to tie the date for choosing between MA and steel to be one year after the first production of MA under the Hamersley Range 1968 Agreement (as amended by the Hamersley Range 1976 Agreement)\textsuperscript{813}. At the time the first MA production was specified as occurring in 1982, making the choice date 1983.\textsuperscript{814} The

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\textsuperscript{806} Agreement scheduled to the Iron Ore (Hanwright) Agreement Act, No 49 of 1968, clause 9 which inserts Clause 11E into the Agreement scheduled to the Iron Ore (Hanwright) Agreement Act, No 19 of 1967.

\textsuperscript{807} Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 48 of 1968, clause 13.

\textsuperscript{808} Agreement scheduled to Iron Ore (Mount Bruce) Agreement Act, No 37 of 1972.

\textsuperscript{809} Ibid, clause 31.

\textsuperscript{810} ibid, clause 34.

\textsuperscript{811} Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act Amendment Act, No 93 of 1976.

\textsuperscript{812} The first proposals for MA under the Mount Bruce 1972 Agreement were due in June 1978 compared to first proposals for steel under the 1963 Agreement (as ratified) being due in August 1986, some 8 years earlier.

\textsuperscript{813} Agreement scheduled to Iron Ore (Mount Bruce) Agreement, No 94 of 1976, clauses 4(3) and 4(4).

\textsuperscript{814} The 1976 amendment made the date for first production the end of ‘new Hamersley year’ 10. New Hamersley years were defined in the 1968 amendment as being counted from the date of issue of the mineral lease under the provisions of the 1968 amendment. The lease was granted in June 1970, making 1982 new
steel date was left at 1989. There was a link between the choice date for MA or steel in the Mount Bruce 1972 Agreement and the MA dates in the Hamersley Range 1968 Agreement. This meant any extension of the 1968 MA dates automatically extended the choice date under the 1972 Agreement. However this did not extend the steel proposals date in the 1972 Agreement. This meant that if the steel proposals date was not separately extended each time the 1968 MA dates changed, the steel dates could be overrun by the choice dates after 6 years extension; ie in 1989.815

Agreement changes in 1987
The Mount Bruce 1972 Agreement was amended in 1987 to make steelmaking the only agreement obligation.816 At the same time the steel obligation was removed from the Hamersley Range 1963 Agreement.817 The steelmaking obligation in the Hamersley Range 1963 Agreement was now effectively transferred to the Mount Bruce 1972 Agreement with new timings while remaining the same in terms of required capacity. The 1987 variations also introduced the possibility of acceptance of alternative investment(s) in place of steel,818 an option not available under the Mount Bruce 1972 Agreement until then (or the Hamersley Range 1963 Agreement).

The date for submission of proposals was fixed as 31 December 1991 (five years later than the timing in the 1963 agreement) and full production was to be reached by 31 December 1999 (only 2 years later as the allowed build up to full capacity was now reduced to 8 years compared to 11 in the 1963 agreement).819

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815 This problem was identified by the department in a minute to the Minister dated 29 August 1984 (DID file 30/77 vol 2). By that time the MA production date had been extended to August 1986. This made the choice date August 1987, which meant there was a narrowing of the gap between choice and steel proposals to 2 years. At that time another extension of the MA proposals date was required as the last extension was about to expire. As seen in part 3 of this chapter, the timing problem was resolved through the agreement between the Minister and company to drop MA out of the Mount Bruce Agreement as the company was happy to choose steel, having decided that it was not going to choose MA in any event.
816 Agreement scheduled to Iron Ore (Mount Bruce) Agreement Amendment Act, No 26 of 1987, clause 4(5) and (6).
817 Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 24 of 1963, clause 4(2).
818 Agreement scheduled to Iron Ore (Mount Bruce) Agreement Amendment Act, No 26 of 1987, clause 4(1)(a) and clause 4(6). Alternative investments were defined to be anything that was put forward by the company and approved by the Minister.
819 Ibid, clause 4(6).
Considering the complexity of the arrangements made in the years since the 1963 agreement, the end result in 1987 was a modest (5 year) extension of time for steelmaking proposals to be submitted and an earlier (two years) achievement of full production (which could be seen to partially balance out the later proposal date).

**Agreement changes since 1987**

There have been no ratified changes to the Mount Bruce 1972 Agreement processing obligations since the 1987 changes so it would be a reasonable assumption that the obligation remains unchanged and only extensions of time have been granted. The Department of State Development confirmed this in 2011 when it advised the thesis author that the steelmaking obligations remained unchanged, with the first steel proposals then being due by 31 December 2012.\(^{820}\) This means that 21 years of extensions had been given to that date since the proposals date set in the 1987 amendments.\(^{821}\)

**Progress with meeting the steelmaking obligation between the 1987 variation and mid 2002**

In May 1987, Hamersley Iron wrote to the Minister and clearly put its position in respect of steelmaking and the agreement variations:

> The Company recognizes that your sponsorship of the amending bills [Mount Bruce and Hamersley Range] is predicated on the understanding that the Company is actively pursuing such alternative investments [including] secondary processing technologies appropriate to the satisfaction of the original obligations...it is intended to continue the direct smelting research and development program...the CRA – Kloeckner technology...appears to offer the best chance for viable greenfield steelmaking in the state...the objective of the current phase is to enable decisions to be made concerning the construction of a larger scale unit with which to demonstrate the technical and commercial viability of the new process.\(^{822}\)

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\(^{820}\) Letter from Department of State Development to thesis author, undated but received by author in October 2011 in response to request by author, 8 August 2011

\(^{821}\) The files that would contain specific information on the negotiations that lead to extensions being granted are not yet open to researchers. However, there is public information that shows the outcomes that were achieved by the state in return for the extensions of time.

\(^{822}\) Letter from Hamersley Holdings to Minister, 28 May 1987, DID file 322/72 vol 3.
This put direct smelting steelmaking as the company preferred alternative investment to meet the steelmaking obligation, but the Company further commented that:

While Hamersley’s primary focus in meeting its obligations is through the research and development program for direct steelmaking now in place, the ultimate commercial applicability of this research effort remains unknown. We have both agreed that, in the end, whatever materializes must be founded on sound commercial principles.823

As will be seen below the HIsmelt demonstration and commercial plants (which resulted from the CRA direct smelting research and development program) were important factors in the extensions of time granted for the steelmaking obligation beyond the due date of 31 December 1991. The commercial plant also partially met the MA obligations in the Yandicoogina 1996 Agreement.824

The HIsmelt demonstration plant satisfied the Hamersley Range 1968 Agreement MA obligation (as an alternative investment) as seen in Part 3 of this chapter, with proposals approved in early 1991. That plant operated until 1999. The proposals for the first stage of a commercial HIsmelt plant were approved in June 2002.825 That plant was subsequently built, (construction commencing January 2003, completed April 2005826) and operated, at Kwinana (notional capacity 0.8mt/a of iron product, being officially opened November 2006827 and ceasing operations in December 2008828) before being closed in January 2011.829 The environmentally approved project was for a two stage investment in iron making; a first stage with an 0.8mt/a iron capacity with a second stage duplication.830 There were also plans for steel making facilities to be built at Kwinana, subject to feasibility.831 This project would be

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823 Ibid.
824 Agreement scheduled to the Iron Ore (Yandicoogina) Agreement Act, No 65 of 1996, clause 23.
825 Brown, WAPD, 1 April 2003, p. 5909.
826 Rio Tinto News Release, “Celebrations recognise the world’s first commercial HIsmelt plant”, 9 November 2006. Not on Rio Tinto website, copy held by author.
827 Ibid.
830 Environmental Protection Authority, Commercial HIsmelt Plant, Kwinana, WA, Report No1068, September 2002, p. 1, Environmental Protection Authority, Perth, Western Australia.
the basis for further deferrals of the steel obligation832 (which by then had already been evidently deferred from 1991 to 2002) and for the satisfaction833 of the secondary processing obligations under the Yandicoogina 1996 Agreement.834

The Department of State Development has advised that that processing obligations under the Yandicoogina 1996 Agreement had been partly met (2 out of 3mt/a of MA) by an alternative project with proposals for the remaining 1mt/a of MA due at the end of 2011.835 The alternative project was not stated, but the Minister for Mines, Norman Moore, told Parliament in late 2011 that the construction of the HIsmelt plant had satisfied two thirds of the MA obligation.836

By 2002 the steel obligation had already been extended for 10.5 years. A reasonable presumption is that the company gained a number of extensions to accommodate the development of the new steelmaking technology at Kwinana.837 The company had clearly said (see above) that it saw this as its preferred means of discharging the steel obligation. The demonstration plant was an essential element in proving the technology so that would be an acceptable argument for the state to agree to extensions. This is supported by comments made by Premier Gallop at the time.838 The further extension to the end of 2012 looks to have been aimed at giving the company time to commit to the second stage of the HIsmelt plant and to steelmaking using the HIsmelt product, although this does not appear to have been mentioned in parliament or in media releases at the time.

832 Brown, WAPD, 6 December 2001, p.6225 where he stated that ‘The department of Mineral and Petroleum Resources advised that the HIsmelt project, as currently proposed, will not release Rio Tinto from its steelmaking obligations under the Mt Bruce Iron ore agreement. However, in recognition of this significant first stage investment in iron making, I have agreed to an extension to the date by which Rio Tinto must submit steelmaking proposals under the Mt Bruce agreement.’ and Brown, WAPD, 1 April 2003, 5909 where he stated that; ‘The date for submission of proposals to meet steelmaking obligations in the Mount Bruce agreement was extended to 31 December 2009 in July 2002.’


834 Agreement scheduled to the Iron Ore (Yandicoogina) Agreement Act, no 65 of 1996, clause 23.

835 Letter from Department of State Development to thesis author, undated, but in response to request by author, 8 August 2011 and received by author in October 2011.

836 Moore, WAPD, 1 December 2011, p. 10291.

837 Throughout this thesis there is evidence that the state did not grant long extensions of time, preferring successive short periods.

838 Gallop, WAPD, 17 April 2002, p. 9691 where he said ‘…the HIsmelt Corporation [the vehicle used by Hamersley Iron for the development of the technology] proposes to develop its pilot plant site in Kwinana into a commercial pig iron plant and, subject to feasibility, to install steelmaking facilities’.
Progress with meeting the steelmaking obligation between mid 2002 and mid 2014

The approval of the commercial plant at Kwinana saw the steelmaking obligation extended to end 2009. 839 The commercial HIsmelt plant was placed on care and maintenance in late 2008 with little expectation that it would re-open and (by implication) no plans to construct the second stage. 840 Rio Tinto announced the permanent closure of the plant in March 2011. 841 In April 2011 Rio Tinto announced that the plant would be dismantled and sent to India (where it would be operated by an Indian company under licence from Rio Tinto). 842 This closed off any prospect for a second stage leading into steelmaking at Kwinana. It also meant that the state and company would have needed to consider the then not far away 2011 MA and 2012 steel deadlines (as noted above). An alternative project could have been expected to be an attractive option compared to a long extension of the MA and steel obligations, since neither was likely to be possible in the foreseeable future with the abandonment of HIsmelt as an option for Kwinana.

In September 2011 the state and Rio Tinto announced that the company would receive a waiver for some (unspecified) of its processing obligations in return for giving up rights to water from the Millstream aquifer in the Pilbara that were held under the Hamersley Range 1963 Agreement. 843 This water would be used by the state to further its plans to develop Karratha as a major city and would avoid state investment in a major desalination plant that would have cost A$370 million. As a result, Rio would spend US$310 million (A$292m) in developing its own alternative water supply. 844

Legislation that included the waiver was passed by parliament in November 2011, although the waiver provisions were not as specific as the announcement suggested. 845 Instead amendments were made to the Yandicoogina 1996 Agreement 846 that provided that the MA

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839 Brown, WAPD, 1 April 2003, 5909 where he stated that; ‘The date for submission of proposals to meet steelmaking obligations in the Mount Bruce agreement was extended to 31 December 2009 in July 2002.’
840 Klinger, Peter, “Rio slashes $277m off value of Kwinana HIsmelt project”.
841 Klinger, Peter, “Rio cans $1b HIsmelt Kwinana iron plant”.
842 Klinger, Peter, “Rio’s HIsmelt turns money spinner”, The West Australian, 6-7 August 2011, West Business, p. 79.
844 Rio Tinto Media release, “Rio Invests US$310 million for Pilbara coastal water project”.
845 Iron Ore Agreements Legislation Amendment Act, No 61 of 2011.
846 Ibid, clause 3(10).
obligation would be extended for up to 10 years from the date that an alternative project was agreed in place of the steel obligation under the Mount Bruce 1972 agreement. No changes were made to the Mount Bruce 1972 Agreement. The Premier, Colin Barnett, stated in Parliament that Rio had agreed to develop the new Bungaroo groundwater supply. This would meet Rio’s water needs at Karratha through a new pipeline from Bungaroo to Millstream and the shared (state/Rio) upgrading of the pipeline to Karratha. The state had agreed to amendments to the Yandicoogina 1996 Agreement to provide a long term deferral of the processing obligations, but provided no explanation as to what the amendments were or how they worked. Barnett also made no mention that the water arrangements would extinguish the steel obligation by being accepted as an alternative project under the Mount Bruce 1972 Agreement.

The department of state development advised the author in July 2013 that no alternative investment had been submitted or approved under the Mount Bruce 1972 Agreement but anticipated that the Bungaroo water project, expected to be complete at the end of 2013, would be submitted when complete. In April 2014 completion of the project was announced by the state and it was noted that the project had been accepted as an alternative investment that met the agreement obligation.

Conclusion on outcomes from the Hamersley Range Steelmaking Obligation

The steel obligation was always some time off (initially 1986) and from 1968 likely to be replaced through the choice under the Hanwright 1968 and then Mount Bruce 1972 Agreements of MA over steel. This meant that the focus of both company and state was on the MA obligation. However, by 1984, Hamersley Iron had reached the conclusion that MA...
was never going to be viable in the Pilbara. The company’s interest had also shifted to the development of new steelmaking technology that became known as HIsmelt as it also did not believe that conventional steel was an option. This saw the dropping of the MA choice from the Mount Bruce 1972 Agreement in 1987 and the inclusion of the alternative investment provision into the steelmaking obligation clause. This showed that both sides no longer expected the steelmaking obligation to be met as envisaged when the Hamersley Range 1963 Agreement was ratified, either to time or form.

Hamersley Iron (Rio Tinto) put substantial efforts (and money) into the development of the HIsmelt technology (pilot plant in Germany, demonstration and commercial plants at Kwinana). That technology development effort was the basis for the extinguishment of 5 out of 6mt/a of MA obligations in the Hamersley Range 1968 and Yandicoogina 1996 Agreements. Also, while progress was being made, the steel obligation in the Mount Bruce 1972 Agreement was being successively extended (from end 1991 to end 2012). Initially this was done thinking that the commercial HIsmelt plant would replace steel but later the two stage development of the commercial plant at Kwinana development would extinguish the Yandicoogina 1996 Agreement MA obligations. By then it was hoped that a steel plant would be built at Kwinana to use HIsmelt as its feedstock which would mean that the steel obligation would have been met as intended. The company decision in 2011 not to continue with the development or application of the technology within WA then left both sides with the need to find a suitable alternative investment as steel once again was not a prospect. The Bungaroo water supply project became that alternative project and in April 2014, some 28 years later than envisaged by the Hamersley Range 1968 Agreement, and in a different form, that project met the processing requirements on that agreement.

The 2011 amendments were a significant event in the history of processing obligations and it is unfortunate that the parliament did not seem to be aware of this when the changes were made. If parliament had been fully aware there could well have been some discussion on the final outworking of the steel obligation and the merits of the alternative investment that would be accepted in comparison to steel. Given the passing reference in the Premier’s second reading speech (one sentence at the end) and the complexity of the wording, it was

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852 Letter from Barlow to Parker, 7 December 1984, DID file 30/77 vol 2, folios 204-204.
853 Ibid.
854 With the demonstration plant extinguishing MA obligations under the Hamersley Range 1968 Agreement and the steel obligation under the Mount Bruce 1972 Agreement being extended (see part 2 of this chapter).
hardly surprising that it was not a focus for debate. The end result was that the steel obligation had been quietly set up to be replaced by the Bungaroo water project through executive action under the Mount Bruce Agreement. The 2014 announcement was misleading in that it said that the project would allow Rio Tinto to meet its secondary processing obligations via an alternative project without specifying what those obligations were.\textsuperscript{855} This meant that the passing into history of the Hamersley Range 1963 Agreement steel obligation was not publicly acknowledged.

Chapter 8

Analysis of agreement processing obligations outcomes

This chapter assesses the outcomes of the state policy of providing access to resource for the development of iron ore export projects in return for future processing. Charles Court, in 1970, set out the objectives of the state as being:

_The maximum degree of processing that is reasonably practicable is expected of developers. The minimum requirement is specified in the ratified agreements...they have a period in which to generate a strong cash flow from the sale of untreated ore. [This] is expected to help them capitalise the processing phases...Our agreements lay down a generous time scale but we rely on our developers to move into processing at the earliest possible moment._

This statement was tempered later in the paper by his recognition that the state could not be sure at the time the five original Pilbara agreements were negotiated which would go ahead, how many or in what order. He also commented that processing would not be as profitable as exporting unprocessed ore and would not be able to support the provision of infrastructure in the same way.

Court did not define what he meant by ‘reasonably practicable’ but did say that he wanted to see the ‘maximum economically saleable degree of processing’. This introduces an economic test into the idea of practicable and it can be assumed that Court would not expect processing to be done unless it achieved a positive return to the developer, although that return would be expected to be less than that from exporting unprocessed iron ore.

At the time Court would have hoped that the processing obligations would be met to the times and in the amount and form as set out in the agreements. Any more would be seen as moving towards a goal of maximum processing that Court recognised would require a wide

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suite of policy measures from state and commonwealth. The acceptance of less or different or not to time processing as meeting an agreement obligation would have required the developer to convince the state that circumstances meant that the required processing was not reasonably practicable. This could include arguments based on the inadequacy of returns to the developer from processing.

Court was also conscious that there were issues if the Pilbara was selling ore to customers while competing with those same customers in their market places. He recognised that this meant that processing in the Pilbara faced a limitation as soon as it attempted to move into processing that placed it in competition as that would ‘defeat our own ends’ through being in ‘head on collision with our customers’. His solution was for them to replace early parts of their processing with products from the Pilbara so that the Pilbara would ‘still be supplying a raw material not in competition with our main customers’. Court wanted to see the Pilbara ‘develop a world partnership with the northern hemisphere… [and] to develop a range of processed products to meet not only the present but future needs of our customers’.

Of the five original agreements, three were for projects based on ores that were expected to require upgrading before being able to be exported because they were pisolithic (limonitic) ores (Cleveland Cliffs, BHP) or marra mamba ores (Mount Goldsworthy) that had iron levels below that expected for direct shipping ores. This meant that the projects were not really part of the development ‘deal’ and hence have not been considered in this thesis, other than where they had relevance to the agreements that were part of the ‘deal’. The other two original agreements (Hamersley Range and Mount Newman) were very much part of the

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858 Court, “Iron Ore Policy In Australia”.
860 Ibid.
861 Court “Iron Ore Policy In Australia”.
862 Court commented in his second reading speech on the Iron Ore (Cleveland Cliffs) Agreement Bill that: ‘In this case [the agreement] is for ore of an average grade of 60per cent. These ores… [are] normally unattractive as direct shipping ore… without upgrading or processing…It is paradoxical that these limonitic deposits…may still be the means of the establishment of a major processing industry ahead of some of the major haematite deposits which are the subject of other agreements.’ (WAPD, 19 November 1964, p. 2814) and commented in his second reading speech on the Iron Ore (Mount Goldsworthy) Agreement Bill that; ‘The size and nature of the deposits are different from those covered by the Hamersley Iron and Mount Newman agreements. It was felt they did not warrant the inclusion of specific provisions in relation to steel.’ (WAPD, 27 October 1964, p. 1913).
863 In addition, the areas held under the BHP 1964 agreement were transferred to the Cleveland Cliffs 1964 Agreement in 1970 to provide that project with sufficient resource to support long term operations. Agreement scheduled to the Iron Ore (Cleveland-Cliffs) Agreement Act, No 35 of 1970, recital (e).
‘deal’ as they were based on direct shipping ores and had obligations for both secondary processing and steelmaking.\(^{864}\)

Following from these two original agreements relevant to this thesis there were a further five agreements of the same type entered into by 1974. Two were related to the Hamersley Range 1963 Agreement (Hamersley Range 1968 and Mount Bruce 1972 Agreements) through their ownership by Hamersley Iron (now Rio Tinto) and one (Wittenoom 1972 Agreement) had its obligation transferred to the Hamersley Range 1963 Agreement, to be met by the same company.\(^{865}\) The other two were the McCamey’s Monster 1972 Agreement (obligations triggered by the commencement of exports in 1988) and the Rhodes Ridge 1972 Agreement (not triggered as yet as no project has been developed).\(^{866}\)

All of the agreements mentioned above were entered into before the first oil shock of 1973 impacted the Australian economy. The prospects for processing were adversely affected by the oil shock and the following stagnation in the markets for processed products.\(^{867}\) Also the northern hemisphere customers were not growing economically and that meant that there was no demand from them for new facilities.

When demand returned in the late 1980s the customers did not resume growth and the new facilities were located in developing economies where cost structures and government policies mean that private operations in developed economies (including Australia) could not compete. This made processing in a partnership arrangement as envisaged by Court (above) impossible as the expected customers were not growing their production and the new ‘customers’ were in countries that were not interested in ‘exporting’ development through taking processed raw materials. In addition, iron ore export volumes from the Pilbara stagnated until the late 1980s. This meant that the industry was not able to generate the cash flows that might have been available to invest in processing.

Had the oil shocks of the 1970s not happened the growth in demand for steel would have made it easier to establish processing in the Pilbara, particularly as iron ore export volumes

\(^{864}\) See Chapter 3 Part 1.  
\(^{865}\) See Chapter 3 Parts 2 and 3.  
\(^{866}\) See Chapter 3 Part 3.  
\(^{867}\) See Chapter 4 Part 1.
would have also grown and generated healthy cash flows for investment in processing.\footnote{868}{Ibid.} Also the customers that Court thought would take processed material in replacement for iron ore imports would have been able to do this as their own production of steel grew.

Table 8.1 below sets out the obligation under each of the ‘deal’ agreements and the processing that has been achieved in each case. The table shows that, by mid-2014, the obligations had all been met, although not always to time or in the form envisaged by the agreement. This is a significant finding as this says that all of the obligations have been effective through outcomes being achieved as envisaged (including earlier or in greater amounts) or as negotiated with the state when both sides agreed that the agreement outcome was not able to be achieved or was so much in doubt that a certain outcome today was preferred to an uncertain future outcome. The state did not give up on any obligation, preferring to extend times or allow alternatives where it was clear that the agreement timing or processing could not be achieved.\footnote{869}{See Chapters 6 and 7.}

There were nine obligations across the seven agreements relevant to this thesis (see table). Six were met to, or ahead of, time (shown as * in comment column). Of these, three were met in accordance with the agreement requirements, one partly and two through an alternative project (the BHP HBI plant). Of the remaining three, two are linked in that the Mount Bruce steelmaking obligation was extended while the Hamersley Range MA obligation was met by the HIsmelt demonstration plant.\footnote{870}{See Chapter 7 Part 3.} The steelmaking obligation was then further extended while the HIsmelt commercial plant was in operation at Kwinana.\footnote{871}{See Chapter 7 Part 4.}

When that closed it was agreed in 2011 that an alternative project (the Rio Tinto Bungaroo water supply development in the Pilbara), when constructed, would meet the steel obligation.\footnote{872}{Ibid.} This happened in early 2014.\footnote{873}{Media statement, Barnett, Colin, and Davies, Mia, “Future water supply secured for West Pilbara”, 24 April 2014, http://www.mediastatements.wa.gov.au/ Pages/ Colin-Barnett.aspx.} The other obligation, the Mount Newman steelmaking obligation, was met through an alternative project (the Pilbara Energy Project) soon after the obligation fell due in 1989.\footnote{874}{See Chapter 6 Part 2.}
<table>
<thead>
<tr>
<th>Agreement</th>
<th>Obligation in agreement</th>
<th>Due dates (in 2006)</th>
<th>Obligation as met</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Steelmaking of 1mt/a capacity</td>
<td>None.</td>
<td>Transferred to Mount Bruce Agreement in 1987.</td>
</tr>
<tr>
<td>Hamersley Range 1968</td>
<td>MA of 3mt/a capacity</td>
<td>None.</td>
<td><em>Obligation met in different form and part met near to time and rest later.</em> Part (1mt/a) met by 1976 concentrate plant and rest met ~1993 commissioning of HIsmelt demonstration plant. Met by alternative investment in Pilbara Energy Project.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mount Newman 1964</td>
<td>Secondary processing of 2mt/a capacity</td>
<td>None.</td>
<td><em>Obligation met as required and to time.</em> Met by 1979 beneficiation plant.</td>
</tr>
<tr>
<td></td>
<td>Steelmaking of 1mt/a capacity</td>
<td>None.</td>
<td>Obligation met in different form and later than required. Met by alternative investment in Pilbara Energy Project.</td>
</tr>
<tr>
<td>Mount Bruce 1972.</td>
<td>Pellets of 3mt/a capacity OR Pellets of 0.5mt/a and MA of 1mt/a capacity</td>
<td>None.</td>
<td><em>Obligation met in the alternative with MA replaced by concentrate plant and earlier than required.</em> Discharged by expansion of Hamersley Iron pellet plant and establishment of concentrate plant (as alternative to MA) in 1976.</td>
</tr>
<tr>
<td>Mount Bruce 1972 as amended in 1987.</td>
<td>Steelmaking of 1mt/a capacity</td>
<td>None.</td>
<td><em>Obligation met in April 2014 by acceptance of Rio Tinto Bungaroo water supply as an alternative project.</em> Proposals originally due 1991. Dates were initially being extended in anticipation that development of HIsmelt at Kwinana could see</td>
</tr>
<tr>
<td>Location</td>
<td>Obligation Type</td>
<td>Status</td>
<td>Notes</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------------------------------------------------</td>
<td>---------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Rhodes Ridge 1972</td>
<td>Secondary processing of 6mt/a capacity</td>
<td>Not triggered</td>
<td>Until exports commence obligation not triggered.</td>
</tr>
<tr>
<td></td>
<td>Steelmaking of 1mt/a capacity</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Wittenoom 1972 as varied in 1979</td>
<td>Concentrates from treating 6mt/a of ore or 20% of production (whichever was greater)</td>
<td>None</td>
<td>Obligation met ahead of time.* Met by Paraburdoo fines processing plant after being transferred to Hamersley Range Agreement along with some mining areas. No obligations attached to areas left in Wittenoom Agreement.</td>
</tr>
</tbody>
</table>

The facilities established to meet obligations that are in operation today are:

- gas pipeline and power infrastructure that replaced the Mount Newman steel obligation (meets)\textsuperscript{890}
- Bungaroo water supply that replaced the Hamersley Range steelmaking obligation (meets)\textsuperscript{891}
- Concentrate plant at Tom Price (met)\textsuperscript{892}
- Concentrate plant at Newman (met)\textsuperscript{893}
- Fines processing plant at Paraburdoo (met)\textsuperscript{894}

\textsuperscript{884} See Chapter 5 Part 1.
\textsuperscript{885} Klinger, Peter, “Rio cans $1b HIsmelt Kwinana iron plant”.
\textsuperscript{887} See Chapter 6 Part 3.
\textsuperscript{889} See Chapter 5 Part 1.
\textsuperscript{890} Ibid.
\textsuperscript{891} See Chapter 7 Part 4.
\textsuperscript{892} See Chapter 7 Part 2.
\textsuperscript{893} See Chapter 6 Part 1.
While there have been closures of facilities (see below) that have been held to represent failures of the agreements, there is an unfortunate tendency to lump all processing plant closures together without recognising that they are not equivalent and not all in the Pilbara. In terms of the processing of relevance to this thesis the establishment of the agreement or other agreed facilities met the agreement obligations. However, there were no obligations for ongoing operation or for the revival of obligations if a facility did close. It is probable that the view was that a plant, once built, would operate as the act of building said it was considered to be an economic plant and operation was part of that economic equation. However the lack of a revival mechanism may be seen as an omission as exports would continue and that could say that processing should still be required. Also it is simplistic to just list closures without considering what was gained by the state from the plants before their closure.

- The Hamersley Range 1963 Agreement pellet plant was constructed and in operation at full agreement capacity 15 years earlier than required and operated for a little over 10 years. This was worth more in economic terms than construction and 10 years of operations to the later agreement timings, something that is always overlooked.
- The HIsmelt demonstration plant operated for a very limited period, but this was expected as it was always intended to be a stage in the development of the technology, not a permanent production plant. It was less economically valuable (expected expenditure $100m) than the 2mt/a MA obligation it met. However the plant was a necessary step in the development of the technology and this made it an acceptable alternative investment.

894 See Chapter 6 Part 4.
895 For example: ‘…failed secondary processing obligations under old state agreements…Rio Tinto’s move to can its HIsmelt venture in Kwinana in 2011 added to a long list of costly economic failures headed by BHPBilliton’s HBI plant at Port Hedland…and Rio’s iron pellet plants at Dampier and Cape Lambert.’ (Kerr, Peter, and Evans, Nick, “FMG gets plant reprieve”, The West Australian WESTBUSINESS, 3 July 2013, p.1) and ‘Hismelt joins a long list of costly ‘value added’ failures headed by BHP Billiton’s HBI plant at Port Hedland and its blast furnace and steel rolling mill, the state run Wundowie Iron and Steel works, and iron ore pellet plants at Dampier and Cape Lambert.’ (Klinger, Peter, “Rio cans $1b HIsmelt Kwinana iron plant”, The West Australian WestBusiness, 19 January 2011, p. 1.).
897 Using a 6% real discount rate 10 years of operations of the pellet plant as built was worth 27 years of operation of the same plant starting 15 years later. The construction value at the time was 1.8 times that of the same plant built 15 years later at the same discount rate.
898 Media statements by Parker, P89/14, 22 June 1989 and 3 November 1989, copies in possession of author.
899 Media statement by Parker, P89/14, 22 June 1989, copy in possession of author.
900 Agreement scheduled to the Iron Ore (Hamersley Range) Agreement Amendment Act, No 27 of 1987, clause 5(3).
901 See Chapter 7 Part 2.
• Stage 1 of the HIsmelt commercial plant was closed in early 2011 after operations had been suspended in late 2008 after less than three years of operation because of lack of demand.\textsuperscript{902} The total cost written off by Rio Tinto was $1bn\textsuperscript{903} and stage 1 was accepted as meeting 2mt/a of MA obligations under the Yandicoogina 1996 Agreement (earlier than required) and to extend the time for the Mount Bruce 1972 steelmaking obligation.\textsuperscript{904} It had been hoped that a second stage would be developed to meet the rest of the Yandicoogina MA obligation and that an EAF steel facility would be added to meet the steel obligation.\textsuperscript{905} This was an outcome from the first stage plant that the state took into account at the time.

• The BHP HBI plant that began exports in May 1999 did meet a number of obligations (McCamey’s Monster secondary and steelmaking obligations (both early), Marillana Creek 1991 (non-specific type or timing) and Mount Goldsworthy (not triggered secondary and upgrading) 1964 Agreements). However, it had technical and safety problems and was permanently shut down in August 2005.\textsuperscript{906} The obligation was to spend $400m in capital; BHPbilliton wrote off more than $2.5bn between 1998 and 2000, plus another $0.25bn in 2005 on the project construction and operation.\textsuperscript{907}

While there may be nothing to show today for these obligations in terms of ongoing operations, there were economic and other benefits from the construction of the facilities and the operation of the plants until closure. These benefits should not be discounted when considering processing obligations outcomes. A further point is that closure of operations can happen with any commercial enterprise at any time for a wide range of reasons. It would actually have been more surprising if all plants established under agreements had remained in operation rather than some closures happening over time.

Considerable emphasis has been placed on the steelmaking obligations as outcomes that were not achieved. When the original agreements were negotiated, the state’s hope was that

\textsuperscript{902} Klinger, Peter, “Rio cans $1b HIsmelt Kwinana iron plant” and Wilson, Alex, “Rio Tinto Suspends Production at Kwinana HIsmelt Plant”, Dow Jones Newswires Dow Jones International News, 22 December 2008, copy in possession of author.

\textsuperscript{903} Klinger, Peter, “Rio cans $1b HIsmelt Kwinana iron plant”.

\textsuperscript{904} See Chapter 7 Parts 3 and 4.

\textsuperscript{905} See Chapter 7 Part 4.


\textsuperscript{907} BHP Billiton, “Hot Briquetted Iron Facilities to Close at Boodarie Iron”.
steelmaking would one day be done based on the Pilbara iron ore, hopefully in the Pilbara, although the government understood from an early date that a south west location was more likely because of high costs in the Pilbara. The government also recognised that ‘uneconomic or unrealistic operations’ would not be expected to be undertaken and that having an agreement obligation was not, in itself, an absolute guarantee of having a steel industry; rather that an agreement was an essential ‘link in the chain of events to bring about great mineral and industrial progress’. This contrasted with the BHP agreement for a steel mill to be established at Kwinana, which was seen as something that ‘…will be established as a firm contractual commitment on a defined timetable.’

There were three agreements with specific steelmaking obligations: Hamersley Iron 1963 (which carried through to Mount Bruce 1972 (as amended in 1987), Mount Newman 1964 and McCamey’s Monster 1972.

The Mount Newman obligation was discharged by the Pilbara Energy project as the state had decided to accept the project as something that could happen rather than continue to extend a steelmaking obligation that it did not see as ever being possible. The McCamey’s Monster processing obligations for secondary processing and steel obligation were taken on by BHP in the late 1980s when it purchased the project (with the obligations having been triggered through export of iron ore) from Hancock Prospecting. BHP tried and failed to include those obligations with the obligations to be extinguished by the Pilbara Energy Project. BHP subsequently agreed to build a HBI plant at Port Hedland. This would

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909 See comments by Court in “Iron Ore Policy In Australia” where he said ‘Costs at this stage may make it necessary for initial crude steel production to take place near the main centers of population but the possibility of making steel in the iron fields will remain an integral part of the total development [of the Pilbara]’. Also Court’s Cabinet submissions of 10 July 1967, Premier’s Department file 302/67, and 31January 1970, Premier’s Department file 215/70.
912 Ibid.
913 This was in replacement of the Hamersley Range 1963 obligation that had been suspended since 1972 in anticipation of the processing obligations under the Mount Bruce 1972 Agreement being met, which would then have extinguished the suspended steel obligation.
914 See Chapter 6 Part 2.
916 See Chapter 6 Part 3.
917 See Chapter 6 Part 2.
extinguish the McCamey’s Monster processing obligations, as well as those under the Marillana Creek 1991 and Mount Goldworthy 1964 Agreements.918

The closest the state came to achieving steel production through the agreements was with the Hamersley Range (Mount Bruce) 1963 Agreement obligation. This obligation was extended when it first fell due (1991) in the hope that the HIsmselt development would lead to HIsmselt product being available at Kwinana for use as steelmaking feed in a project that would meet the steelmaking obligation.919 Once this possibility disappeared, Rio Tinto opted to bring an alternative project (the Bungaroo water supply) to the state rather than continuing to seek deferrals for an obligation that seemed to have no prospect of realisation. This was accepted by the state and has been implemented.920 A major factor in that acceptance was that the project would allow water from the Rio Tinto Millstream water allocation to be used in Karratha and this meant the state would avoid having to build on a desalination plant.921

In all of these cases the state decided to take immediate benefits rather than continue to extend the steel obligations in the hope of future benefits. This could be seen as being an economically rational approach when there was no way that the state could put a date on when the obligation would be met in the form as negotiated. In economic terms it is always better to take a certain payoff today than gamble on an uncertain future payoff. This shows up well in the decision to accept the Pilbara Energy project in 1993 with an expected investment of $300m922 in place of the Mount Newman steelmaking obligation. The fact that Rio Tinto extinguished its steel obligation through an alternative project (see above) in 2014 says that steel remained uneconomic 21 years later. The value of the 1993 investment if it had been made in 2014 was around $1b (at 6% real interest rate), which puts the value amount in current perspective. A little realised benefit of that project is that it allowed the Port Hedland HBI plant to go ahead since gas was available from an already constructed gas pipeline.

918 See Chapter 6 Part 3.
919 See Chapter 7 Part 4.
920 Ibid.
That both the HIsmelt and HBI plants could have been major successes and steel could have been developed at Kwinana on the back of HIsmelt success is often overlooked. In both cases the state showed considerable foresight in supporting Rio Tinto and BHP in making quite risky investments (Rio in developing new technology and BHP in using technology that was unproven at the scale proposed). The state could have just deferred obligations in hope instead of giving extinguishments for immediate developments. Both companies could have been able to demonstrate that the agreement obligations for steel were not economic and to obtain deferments from the state on that basis alone.

In taking the approach it did, the state took on technical risk with the companies in the hope of a major payoff from the success of both plants. To their credit both Rio Tinto and BHP chose not to sit back and let the obligations drag on and on, as they could have. They came up with innovative alternatives (and the Pilbara Energy project fits with this comment although it had low technology risk) and the state accepted them. Both state and companies should be given credit for showing imagination and looking to alternatives rather than pursuing processing routes that did not promise even a medium term chance of success.

The agreement processing obligations were generally met to type and amount and to or ahead of timing (see table 8.1). The MA obligations were met by HIsmelt development and, while they were not met to timing, the HIsmelt process met the agreement definition of MA\(^{923}\) so the obligation can be said to have been met to type. However, the steelmaking obligations have not been met to either type or timing.

In summary there are good arguments that the agreements in which access to resource was swapped for processing did meet the objectives set by Court above, although not always in the form set out in the agreements and to timings that were earlier, the same or later than expected in the agreements. These were pragmatic responses to changes that happened over the period between the agreements being negotiated and the obligations falling due. There was also innovation when the state accepted alternatives that could deliver early outcomes, although at some risk.

\(^{923}\) “metallised agglomerates” means products resulting from the reduction of iron ore or iron ore concentrates by any method whatsoever and having an iron content of not less than eighty five percent (85%); Agreement scheduled to Iron Ore (Hamersley Range) Agreement Act, No 48 of 1968, clause 15(2) and Agreement scheduled to Iron Ore (Mount Bruce) Agreement, No 37 of 1972, clause 1.
It is unfortunate that HIsmelt did not provide a way to steel production at Kwinana and the HBI technology failed (at considerable expense to BHP). Had they been a success the state would have been well justified in its position of accepting these projects as meeting agreement obligations. The state had decided that it preferred the risk of failure to the uncertain future of continued deferrals. It did get quite significant investment by both companies in return for the risk, so there were benefits received for taking risk. Credit should be given to both state and companies in this regard. A more cautious approach by both would have not resulted in better outcomes as the obligations would probably have continued to be deferred with benefits yet to be received. At least by taking some risk early construction and operational economic benefits were received by the state.
Chapter 9

Evaluation of processing obligations implementation and outcomes

Part 1

Evaluation of obligations implementation

Evaluation framework

Matland developed an analytical framework for policy implementation that has been adapted to understand and evaluate the process by which the processing obligations were implemented over time.924 His analytical framework is outlined in Appendix A. Using his framework, the most relevant implementation question is whether the processing obligations, including steelmaking, were requirements that would be *expected* to be met (which would place them in the category of “Administrative Implementation”) or that *might* be met depending on circumstances (“Political Implementation”)?925 The discussion below considers which alternative best fits the steelmaking obligations and, by extension, the obligations generally.

The first Pilbara iron ore agreement that had processing obligations was the Hamersley Range 1963 Agreement. This agreement had obligations for secondary processing and steelmaking.926 In parliament Court said that the intention was that the agreement would lead to the establishment of Australia’s second steel industry. This was seen as the ultimate objective of the agreement because of the greater benefits that could be available compared to the export of iron ore.927 However he qualified this by saying:

> The Government has endeavoured to make it clear...that an agreement of this nature is not an absolute guarantee that our hopes will be realised-as is the case with the B.H.P. agreement for Kwinana where a great steel industry will be established as a firm contractual commitment on a defined timetable... 928

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925 The other two possibilities identified by Matland of “Symbolic” and “Experimental Implementation” would not apply to the obligations. See Appendix A for a discussion of Matland’s four policy implementation paradigms.
928 Ibid, pp. 1418, 1419.
The Mount Newman 1964 Agreement also had a steelmaking obligation. At the time Premier Brand commented that the agreement:

...was designed to provide the basis for the ultimate establishment of a second steel industry...by at least one of the companies [Mount Newman or Hamersley Iron]...[and] created a competitive situation that would be in Western Australia’s favour when the economic potential for a second steel industry developed.929

The obligation on BHP for steelmaking at Kwinana could be seen to be in the category of “Administrative Implementation” as it was clearly expected to be met. On the other hand the Pilbara steelmaking obligations might be met, depending on circumstances (including economic), which places them firmly in the category of “Political Implementation”.

This conclusion is reinforced by comments made by Court where he noted that the most optimistic estimates for the establishment of a second steel industry in Australia on an economic basis was 20 years and that this was the basis for the agreement timing.930 This timeframe alone would make render prescriptive “Administrative Implementation” approaches difficult for both government and the agreement company. Instead it would encourage a “Political Implementation” approach that gives both sides room to move in the future in response to events and changing circumstances.

Court also said that the company (Hamersley Iron) did not want to commit itself to a steel industry except if it proved in the opinion of the company to be economically desirable and practicable.931 Later he said in parliament that ‘no government would expect uneconomic or unrealistic [steelmaking] operations to be undertaken’.932 This acceptance that economics would have the final say was a further reason that the steelmaking obligation could not be in the form of a ‘contractual’ obligation. The final factor that militated against steelmaking being an expected outcome was the doubt at the time that the early agreements were

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930 Court, WAPD, 26 September 1963, p. 1423.
931 Court, WAPD, 15 October, 1963, p. 1679; Court also commented in the cabinet submission for the Mount Newman Agreement that: ‘The company [in this case Mount Newman Iron Ore Company Limited] originally sought relief from some of the processing commitments, including both secondary processing and steel’ Cabinet submission by Court, “Agreement with Mount Newman Iron Ore Company Limited”, 20 July 1964, DID file 215/64, folios 81-83.
932 Court, WAPD, 27 October 1964, p. 1910.
negotiated (1963-1964) over whether the projects would proceed.\textsuperscript{933} This would have made it hard for the government to argue for ‘contractual’ type commitments for steelmaking being placed on projects that were not certain to proceed.\textsuperscript{934}

The next agreement to have a steelmaking obligation, although now it was an alternative to a metallised agglomerate obligation, was the Hanwright 1967 Agreement.\textsuperscript{935} Court said that steel was only mentioned in case the company could not successfully produce metallised agglomerates or an acceptable substitute.\textsuperscript{936} This was a major shift in processing priorities from steel to metallised agglomerates. It also meant that the state would have found it hard to ‘force’ companies with existing steelmaking obligations to meet those obligations. Instead the state would inevitably find itself entering negotiations on alternatives if a company did not want to proceed to steelmaking. The parliamentary debate did not consider the type, adequacy or timing of the processing obligations. There was no call from the Labor opposition to have contractual provisions that would push the obligations towards “Administrative Implementation” and away from “Political Implementation”.

The McCamey’s Monster 1972 Agreement was the last that had a steelmaking obligation.\textsuperscript{937} The processing obligations terms were identical to the Hamersley Range and Mount Newman Agreements. This was despite Labor now being in government and able to take a different approach if it had wished. The iron ore export industry was well established by then and had

\textsuperscript{933} Court said in parliament that ‘it is impossible to predict at this stage [end 1964] which of the major companies will receive contracts for the mining and export of iron ore from the Pilbara. It is not likely that they will all be able to obtain contracts at this juncture of sufficient size to warrant the heavy capital expenditure that is involved, but we are hopeful that at least one or more will receive contracts in the reasonably near future.’ Ibid, p. 1913.

\textsuperscript{934} A matter of some interest is whether the Labor opposition would have taken an “Administrative” rather than a “Political Implementation” approach. The most detailed comments were by Mr Arthur Bickerton, MLA for the Pilbara (WAPD, 15 October 1963, pp. 1667 to 1669). He had nothing to say about the substance of the processing provisions, but did say that the state should; ‘… aim to introduce some method of secondary processing…” (Ibid, p.1669). His use of “aim” suggests “Political Implementation”, just as using “require” would have suggested “Administrative Implementation”. The Deputy Leader of the Opposition, Mr John Tonkin, noted that the agreement did not oblige the company to go into further processing and that he could see nothing in the agreement of a contractual nature (Ibid, p. 1673). But in the end he supported the Bill on the basis that the government was ‘satisfied it has gone into all the angles and this was the best agreement it could get’ in a situation where the development prospect (export of iron ore) represented by the agreement was ‘no more than a possibility’. In the debate on the Mount Newman 1964 Agreement Bickerton did comment that; ‘[the company has] the right, if and when they see fit, to process iron ore…[but they] are not obligated so far as the production of steel is concerned’ but did not suggest a strengthening of the obligation (WAPD, 3 November 1964, p.3130).

\textsuperscript{935} Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 19 of 1967, clause 11.

\textsuperscript{936} Court, WAPD, 5 September 1967, p. 727.

\textsuperscript{937} Agreement scheduled to Iron Ore (McCamey’s Monster) Agreement Authorisation Act, No 104 of 1972, clause 34.
grown much faster than expected in 1963. So there was now much more likelihood that a project would develop and less that a more directive processing requirement as a condition of the state providing access to iron ore resources would be able to be resisted by the company.

**Application of the framework**

The processing obligations in the agreements have the characteristics of policies being implemented through “Political Implementation” rather than “Administrative Implementation”. In Matland’s terms this meant that their implementation would depend on the implementing authority’s (in this case the state) power to require the agent (in this case the agreement company) to comply. As seen above, the state did not set up powers of direction for itself within the agreements. At the time the companies wanted to gain access to resource to negotiate export contracts. The state was keen to use this interest to achieve processing but as shown above could not require too much from companies that it wanted to develop export operations in the Pilbara. This did not allow for a repeat of the strong (thought to be contractual) requirement on BHP to develop steelmaking at Kwinana.

The state was looking to use the iron ore resources that were its to allocate to achieve a number of aims; economic development in the Pilbara through iron ore exports (especially infrastructure which the state could not afford to build), with flow on benefits to the state through royalties and employment; secondary processing; and, ultimately, iron and steel production. The agreements could have included arrangements more like those with BHP for steel at Kwinana but this was probably not feasible at the time as shown above. The state could have waited until contracts were in place for the sale of the iron ore. This would have allowed it to negotiate from a stronger position. But the state decided to go with early agreements as it thought that agreements were needed in order for contracts to be obtained. It also wanted early development of the deposits. This meant that the state had limited power to insist on arrangements in the agreements like those achieved at Kwinana or other strongly directive provisions in relation to processing.

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939 Court, WAPD, 26 September 1963, pp. 1418, 1419.
940 Ibid, p. 1418.
941 Court, WAPD, 16 October 1963, p.1681 and WAPD, 17 October 1964, pp, 1906, 1907.
What the state achieved was an agreement commitment to steelmaking (and secondary processing) in the future for access to resource now. This was a deal heavily favouring the company. The state could not require the company to meet its side of the resource exports for processing equation. It had also said that it would accept arguments against processing based on economics. In addition, by 1967 the state had moved away from steelmaking as the favoured processing outcome (as evidenced by the Hanwright 1967 Agreement provisions referred to above). This made it even less likely that agreement companies would feel that the agreement obligations were requirements on them that were expected to be met.

Matland noted that implementation outcomes in the “Political Implementation” paradigm would be decided by relative power. This meant that compliance would not be expected to be achieved simply because the processing obligations in the agreements were in place. Compliance might be achieved by one actor having sufficient power to force its will on the other; otherwise there will be negotiated outcomes. These could well result in the policy outcomes different from the policy outcomes expected before the negotiations.

What has happened, as demonstrated in this thesis, is that each time a deadline has come due the state and the agreement company have negotiated an outcome at the time and moved on. This process can be seen in the chapters dealing with the progress of obligations under the Mount Newman/BHP (Chapter 6) and Rio Tinto agreements (Chapter 7) and the chapters dealing with agreement changes over time (Chapters 3, 4 and 5), with the overall obligation outcomes covered in Chapter 8. These chapters show that the processes fit well with the “Political Implementation” paradigm of Matland. The outcomes achieved are consistent with what would be expected in this paradigm world where negotiations would decide outcomes no matter how strongly the agreement wording seemed to require the obligations to be met to the agreement timing and type.

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Evaluation of obligations outcomes

Evaluation framework

In part 1 of this chapter it was determined that the processing obligations were being met within a paradigm of “Political Implementation” where outcomes come from negotiations that reflect relative powers with that could be different from those expected. This raises the question of ‘what would be regarded as successful implementation?’ in this environment. In answering this question it is important to keep in mind what could have been expected to be achieved in this “Political Implementation” environment, not only at the time of establishing the original obligations, but also at later times as obligations fell due.

In the *Australian Policy Handbook* the comment is made that; ‘Few programs are unambiguous success or failures. The typical pattern is progress towards goals, rarely complete attainment. The language of absolutes is therefore of little help.’\(^{943}\) Reference is made to other work that concluded that when; ‘…goals are stated as absolutes…anything less than complete success tends to be construed as failure. This reading masks the real accomplishments of many public policies.’\(^{944}\) These are warnings against judging the processing outcomes in the absolute terms of whether the obligation was met as set out in the agreement in terms of type, amount and timing. DeLeon and DeLeon made the comment (page 447) that; ‘…top down policy implementation is prone to hierarchical, unduly optimistic expectations, which in the face of complexity are more likely than not to be disappointed…’\(^{945}\)

McConnell considered the question of evaluating policy success\(^{946}\) and made the comment that ‘there is surprisingly little written on this topic’.\(^{947}\) McConnell reviewed the literature and concluded that ‘…academics and policy practitioners often disagree and struggle with the

\(^{946}\) Ibid, p. 3.
nature of success…”  

He then developed a framework for evaluating success that will be applied to the processing obligations later in this chapter.

These comments are arguments against using success in the meeting of the processing obligations in the sense of winning a race. Instead a more nuanced approach that recognises that ‘success’ in policy implementation is a difficult concept to apply and measure is needed. One approach could be to consider the effectiveness of the policy in achieving outcomes as long as they are acceptable within a “Political Implementation” framework, which allows for shades of ‘success’ as long as agreed outcomes are achieved. McConnell did not consider the Matland approaches that were grounded in his implementation models. However they are explored below, followed by a review based on the McConnell model.

**Evaluation using Matland’s approach**

The processing obligations do not fit exactly in Matland’s discussion of “Political Implementation” as he assumes that negotiations are done on a once and for all basis. This was not the situation with agreements where they are always open to agreed change and have points where decisions are required to be made by both sides through a process that includes negotiations. In this environment it is probably too much to expect outcomes as set at the outset to be achieved, particularly as they would be effectively reset to at least some extent through the conclusion of negotiations.

Matland comes close to recognising what could be expected to happen over time when he considers the situation where implementation requires action from agents not involved in the policy development or overruled in the process to implement the policy. In this case he expects that bargaining will be a common experience. Disputes will be settled in various ways, including ambiguity where questions that cannot be resolved are buried in ambiguous text and left for later resolution. Chapters 6 and 7, which trace out the history of the obligations, show this process in action over time. Given the complexity of that history, it is

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948 Ibid, p. 27.
949 Ibid, Chapter 3.
hardly surprising that win/lose based competitive success measures would fail to properly measure the outcomes.

Matland recognised the importance of the question of determining the success of a policy. He particularly asked whether attention should be given to; ‘fidelity to the designer’s plan or the general consequences of the implementation actions when determining success?’ His discussion is based on situations where there is either a clear legislative requirement that can be used to require implementation or where that does not exist and interpretation of the policy is required. In the first case fidelity is expected; in the second general consequences can be accepted as long as they meet ‘general societal norms and values’.

In the case of the paradigm being discussed here (“Political Implementation”) success would depend on whether compliance could be required. In that case fidelity would be the test. If general consequences achieved through negotiation would be expected, the test would be whether outcomes that were achieved met ‘general societal norms and values’. What they would be exactly was not defined by Matland. However there is an argument that in a representative democracy the government of the day would represent these values in negotiations with a company. As each negotiation was concluded it could be taken that the government, in its representative role, was satisfied that the outcome met ‘general societal norms and values’. Then, if these outcomes were accepted by the public (as measured by the concerns raised in parliament over the outcome, where the opposition could be expected to take issue with the government on policy matters, especially where there were public concerns) then that could be taken as ‘successful’ implementation of policy through negotiation in a “Political Implementation” environment.

In judging the success or otherwise of processing obligations in the “Political Implementation” paradigm, it is possible to take a view that fidelity is important and success should be measured in a competitive sense. This view is most likely to be taken by those who think compliance can, or should, be forced on a company with an obligation. On a more measured and realistic view of processing obligations as representing outcomes agreed at the time and subject to change as circumstances change, fidelity could not be expected.

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The outcomes achieved would represent the outplaying of many factors over a long period with the agreement parties usually in a negotiation situation. On this view outcomes will be negotiated and success should be judged by effectiveness rather than from a competitive view.

The steel obligations when analysed against competitive success and fidelity would be viewed as failures as steel was not made under any of the steelmaking provisions. When analysed against the more flexible criteria of effectiveness and outcomes meeting societal norms and values, the picture is more favourable. Those obligations have all been met in one form or another through negotiated outcomes.

The Mount Newman obligation was met by the Pilbara Energy Project; the Hamersley Range obligation was met by the Bungaroo water supply project (with the state also regaining Pilbara water allocations from Rio Tinto and avoiding investment in a desalination plant); and the McCamey’s Monster obligation was met by the BHP Port Hedland HBI plant. While these outcomes would fail the fidelity test they would meet the societal norms and values test as they were outcomes negotiated with government (respectively Labor, Coalition and Coalition) and not objected to by the opposition of the day when presented to parliament.

At the time of the first agreement to have a steel obligation (1963), Court observed in parliament that an agreement was not ‘an absolute guarantee that our hopes will be realised’ and that 20 years was the ‘most optimistic date to which anyone can hold the company’. Mensaros observed in 1976 that extensions of time were given in recognition that agreement time limits could not be achieved based on economic, technical and chemical considerations. In 1993 Barnett stated that agreements provided ‘leverage’ to the state, which allowed for the negotiation of developments that would not have happened without the existence of the agreement obligations. Ripper (Labor) remarked in Parliament in 1996

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953 See Chapter 6 Part 2.
954 See Chapter 7 Part 4.
955 See Chapter 6 Part 3.
956 Court, WAPD, 26 September 1963, pp. 1419 and 1429.
957 Mensaros, WAPD, 19 October 1976, p.3260.
958 In terms of the value of the agreements, given that the opposition, through Dr Gallop, made the statement that, Barnett observed (WAPD, 9 December 1993, p. 9609), in response Gallop’s statement that the Mount Newman agreement steel obligation had amounted to nothing (WAPD, 9 December 1993, p. 9607), that: ‘Clearly an integrated iron and steel industry is not here [but] your ability to use some leverage on BHP to commit to the Pilbara Energy Project was because they faced a real problem under the agreement Act of having
that ‘Government cannot force a company to invest in an uneconomic project…in the end no company will invest a dollar unless it is economic and commercially viable to do so’.959 The WA State Auditor General commented in 2004 that the obligations in agreements were subject to their commercial viability to the company and if the Minister accepted that meeting them was non-viable he would be expected to defer an obligation rather than set it aside.960

McGowan (Labor) characterised the agreement clauses in 2011 as being ‘best efforts’ clauses.961 This is a long way from them being requirements placed on companies by the state that the state could expect to be met in the form stated in the agreement.

These comments over nearly 50 years all place processing obligations as being within a “Political Implementation” paradigm where (as discussed above) their success is best judged in terms of effectiveness and general consequences.

**Evaluation using McConnell approach**

McConnell has developed a model for considering policy success that can be applied to the agreement processing obligations.962 This model considers a spectrum of success (complete, durable, conflicted and precarious success and failure) using three dimensions in which success can be ‘measured’. They are process (deciding and establishing the policy), programme (implementing and operating the policy) and politics (support through the process and programme stages for the policy). Policies most likely to be modified or abandoned, while not necessarily being seen as failures, would be those in the conflicted and precarious parts of the spectrum. Also any policy that lost political support would be more likely to be

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962 McConnell, Allan, *Understanding Policy Success-Rethinking Public Policy*. 
abandoned even if it could be seen as a success in the process and programme dimensions.

More detail on the model is provided in Appendix B.

McConnell defines policy success in these terms:

*A policy is successful insofar as it achieves the goals that proponents set out to achieve.* [Comment: here the agreement terms constrain the ability of the state to achieve goals that exceed the agreement terms] *However, only those supportive of the original goals are liable to perceive, with satisfaction, an outcome of policy success.* [Comment: this recognises that success is subjective, not objective and may depend on how even a supporter interprets the original goals since these are seldom black and white] *Opponents are likely to perceive failure, regardless of outcomes, because they did not support the original goals.* [Comment: Opponents are unlikely to be anything other than subjective in their judgements and looking for negatives when assessing a policy]

McConnell sets out criteria for success under each dimension in table 2.2 of his book, each of which was interpreted in tables 3.2, 3.3 and 3.4 of his book in a way that would place a policy within the spectrum. This is an interpretation against each criterion for each dimension in isolation, so it is likely that a policy could end up under different parts of the spectrum for a particular dimension. McConnell provides no specific guidance on how to decide on a view about a policy where applying the criteria means that the policy falls into more than one part of his success spectrum. He also provides no guidance to assessing success in a situation where the overall interpretation under each dimension gives different outcomes across the spectrum. His model does recognise that there is a spectrum and provides a framework of value in the consideration of what is meant by policy success. However, the lack of a ‘yardstick’ to aid in reaching a firm conclusion in relation the overall success of a policy is a drawback.

To overcome this drawback, a point scoring system will be adopted in this thesis for the ‘fit’ for each success measure across the spectrum for each of the criteria used by McConnell as follows:

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963 The tables from the McConnell book are reproduced in Appendix B. They are quite large and detailed. Reproduction in the thesis text was considered likely to detract from the arguments in the text. However the text will be more easily followed if the tables are available while reading, rather than having to refer back to the appendix.
4 points where the particular success measure is thought to be definitely met
3 points where it is probably met
2 points where it is unclear/arguable
1 point where it is probably not met
0 points where it is definitely not met

The allocation of points was done by the author in the light of the information presented in the thesis for the processing obligation being evaluated.

Each dimension (process, programme and politics) will be scored against the criteria used by McConnell for that dimension. The highest total criteria score will then identify the degree of success achieved for that dimension. Then the dimension with the lowest highest total criteria will be accepted as the best measure of overall success of the processing obligation.

As a comparison, the option of making a single choice for each criterion and interpreting the outcome on a qualitative basis will also be tested. This will use two perspectives; one looking back on outcomes, and forward in terms of what those outcomes mean for agreements going forward from now.

Before the model can be used it is necessary to consider what it should be applied to in the agreements context. One immediate caution is that the model is based on government actions alone and there is no specific consideration of outside influences. Agreements required actions from private companies and this makes some of the criteria hard to apply. This could mean less clear cut outcomes as points are scored in more spectrum categories than might have been expected.

Another difficulty is the basis for forming views across the spectrum when time is such a major factor. The agreements considered in this thesis all had processing obligations that depended on the initial exporting of iron ores with processing taking place later. There were a range of obligations, amounts required and times for establishment. For steel the agreements were negotiated 20 years before proposals were due and the outcome could be tested. This is a long time in policy terms between setting and implementation of a policy. More normally a policy would be set (process completed) and implemented (programme undertaken) while political support continued. This suggests a much more compressed
timeframe in which outcomes would be evaluated and less risk that changing events would make outcomes hard to achieve or require modifications to the policy.

Something that is overlooked is that the agreements did not require continued operation of a processing plant. This can confuse the situation if allowed to intrude into assessments of success. While some obligations were met by processing plants that later closed down (the HI pellet plant being an example, the BHP HBI plant is another) this would not change the fact that the obligation was met as negotiated (in the case of the pellet plant better than negotiated as it was built well ahead of time\textsuperscript{964}). Not accounting for closure risks (for example requiring continued operation and/or providing for obligations to revive on closure) may be fair criticisms of the agreements as negotiated. However they are really beyond the scope of this analysis which considers only the outcomes achieved under the agreements as negotiated.\textsuperscript{965}

The agreements that will be considered are those that were entered into before 1974. The obligations in those agreements that have seen exports of iron ore have all been met in some form or another.\textsuperscript{966} That immediately says that they cannot be seen as complete failures. It also means judgements regarding success can be made for these agreements can be sensibly made using the McConnell framework.\textsuperscript{967}

Since each agreement being considered was for a particular resource base with a different proponent (agreements were with both companies and JVs) there were inevitably differences in processing obligations. This means that a simple yes/no in terms of overall success in respect of processing obligations would be difficult since each agreement is going to have different expectations and outcomes within an overall policy objective of achieving processing through agreements.

\textsuperscript{964}See Chapter 7 Part 1.

\textsuperscript{965}However these closures have influenced views taken of agreements and have been part of the reasons for agreements fall from favour to the point where new agreements are unlikely to have processing obligations. See Chapter 10 for a discussion of this point.

\textsuperscript{966}See Chapter 8.

\textsuperscript{967}The next set of new agreements with specific processing obligations date from 1996 to 2006. They have not been outworked in full as yet, making them unsuited to analysis for success.
There are also three dimensions of an obligation that need to be kept in mind. They are type, amount and timing. Complete success would be where all three were met as required by the agreement provisions. An example of this would be the HI pellet plant. Complete failure would be when none was met. Steelmaking would be an obvious candidate here since demonstrably no such plant has been established (at all, let alone through an agreement obligation). However, the state traded the obligations for a Pilbara energy project, a HBI plant and a water supply for Karratha. Hence it is not the case that nothing was obtained for the obligations and the state had given up seeking steel through the agreements provisions - that would really have been a complete failure. As discussed above, this outcome of a negotiated arrangement is what would have been expected in the Matland “Political Implementation” model. In that context the steelmaking obligations would be seen as having successful outcomes. But would the McConnell model agree with this Matland model view?

What is proposed is that the steelmaking obligations, as the most ambitious obligations, will be assessed using the McConnell framework. To provide an assessment of an obligation that would be likely to be at the opposite end of the spectrum the HI pellet plant will also be considered. Finally an assessment will be made of the obligations outcomes as a whole.

**Application of McConnell framework to steelmaking obligations**

In the tables below the steel obligations are scored across the success parameters against the three dimensions used by McConnell (process, programme and politics).

**Table 9.1 Process success scoring for steelmaking**

<table>
<thead>
<tr>
<th></th>
<th>Complete</th>
<th>Durable</th>
<th>Conflicted</th>
<th>Precarious</th>
<th>Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preserving policy goals and instruments</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Conferring legitimacy</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Building a sustainable coalition</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Symbolising innovation and influence</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

In terms of process success, when viewed from today, the poor success in achieving the agreement terms as negotiated comes through. While the achieved outcomes mean that they
could not be seen as failures, neither could they be seen as complete or durable process successes.

Table 9.2 Programme success scoring for steelmaking

<table>
<thead>
<tr>
<th></th>
<th>Complete</th>
<th>Durable</th>
<th>Conflicted</th>
<th>Precarious</th>
<th>Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting objectives</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Producing desired outcomes</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Creating benefit for target group</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Meeting policy domain criteria</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Score</td>
<td>Score 7</td>
<td>Score 12</td>
<td>Score 14</td>
<td>Score 11</td>
<td>Score 6</td>
</tr>
</tbody>
</table>

The steelmaking obligations score better against programme success measures. This reflects that some programme success was gained through the investments that were accepted in place of steelmaking.

Table 9.3 Politics success scoring for steelmaking

<table>
<thead>
<tr>
<th></th>
<th>Complete</th>
<th>Durable</th>
<th>Conflicted</th>
<th>Precarious</th>
<th>Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhancing electoral prospects/reputation of governments and leaders</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Controlling the policy agenda and easing the business of government</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Sustaining the broad values and direction of government</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Score</td>
<td>Score 4</td>
<td>Score 7</td>
<td>Score 9</td>
<td>Score 10</td>
<td>Score 6</td>
</tr>
</tbody>
</table>

The politics scores are spread such as to suggest the case for failure or success is mixed. But the low scores suggest that the balance would be easy to upset and that it would not take much to push the politics more towards the failure end of the spectrum.

In the next table a single choice is made for each criterion and all three dimensions are in the one table. The table shows that the steelmaking outcomes are not favourable to a continuation of the policy, at least as far as it relates to steelmaking.
Table 9.4 Process (X), Program (Y), Politics (Z) success assessed together for steelmaking

<table>
<thead>
<tr>
<th>Complete</th>
<th>Durable</th>
<th>Conflicted</th>
<th>Precarious</th>
<th>Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>X, Y, Z</td>
<td>Y, Z</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>Z</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary of tables’ scores

The worst best score for steelmaking is in the politics aspect suggesting that steelmaking is a precarious success ie ‘operates on the edge of failure… [has] major shortfalls or deviations from original goals… proponents might doubt that the policy is viable for much longer…often a stage on the road to outright failure.’ This is supported by the assessment based on a single choice for each dimension where the outcome was conflicted to precarious.

The time factor has an influence here. Certainly the policy of using agreements would have scored very high on process and politics when they were first negotiated. But time has seen political thought move strongly in the direction of less government intervention and more reliance on market forces. The idea that government can cause private companies to invest (and will support that investment specifically and directly) is not something that has the same political belief or support it once did. This means that using agreements to achieve encouraging is out of favour.

The scores reflect a more ambivalent view as they take more notice of the ‘success’ of achieving alternatives, something that tends to be forgotten in favour the simpler political

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968 McConnell, Allan, Understanding Policy Success-Rethinking Public Policy, pp. 61, 62.
969 “… policy norms and instruments survive intact (the policy is not terminated…and proponents continue to support it) but there is a high level of conflict over whether the policy has succeeded or failed.” Ibid, p. 61.
971 For a contemporary view see 2009 press article where Barnett is stated as saying that he; “…admits that he - and others - got WA's resources development model wrong in the past…We tried to turn iron ore miners into steelmakers…and it didn’t work…this was the fundamental mistake we made over the years…to attain our long held dream of adding value it is for steelmakers to come here and set up plants. They are the ones with the true expertise and the need for the product [actually something well recognised by Court but he saw a cooperative arrangement with some processing here by the agreement companies that would replace the front end parts of steelmaking for steelmakers; the difference is in the next point by Barnett]. And really, we’ve been trying to get them to go into competition with their customers.” From Murray, Paul, “Barnett makes ground with resources shift”, The West Australian, 4 August 2009, p. 20.
point that no steelmaking means failure. The Pilbara energy project is still in place, the HBI plant was established and the Bungaroo water supply project has begun to operate. There is a good case to argue that these are successes but the analysis using McConnell’s framework clearly shows that these alternative project successes are not sufficient to be able to argue for processing obligation success.

Application of framework to HI pellet plant

The HI pellet plant obligation was met in terms of type of processing and amount and well ahead of time. Court certainly saw that as a clear success for agreements and the scoring below is done as if that success had happened now rather than 40 plus years ago.

Table 9.5 Process success scoring for HI pellet plant

<table>
<thead>
<tr>
<th></th>
<th>Complete</th>
<th>Durable</th>
<th>Conflicted</th>
<th>Precarious</th>
<th>Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preserving policy goals and instruments</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Conferring legitimacy</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Building a sustainable coalition</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Symbolising innovation and influence</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

| Score | 16 | 12 | 0 | 0 | 0 |

With such a positive outcome there would be no surprise that the verdict from the process analysis is for a complete/durable success.

Table 9.6 Programme success scoring for HI pellet plant

<table>
<thead>
<tr>
<th></th>
<th>Complete</th>
<th>Durable</th>
<th>Conflicted</th>
<th>Precarious</th>
<th>Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting objectives</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Producing desired outcomes</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Creating benefit for target group</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

972 See Chapter 7 Part 1.
973 ‘All our ratified agreements with developers specify a progressive development of processing…we rely on our developers to move into processing at the earliest possible moment. Already this has proved to be the case. One of our earlier developers built a two million tons a year pellet plant 10 years ahead of time.’ Court, Iron Ore Policy in Australia.
Again the positive outcome means the verdict from the programme analysis is one of complete and durable success.

Table 9.7 Politics success scoring for HI pellet plant

<table>
<thead>
<tr>
<th>Complete</th>
<th>Durable</th>
<th>Conflicted</th>
<th>Precarious</th>
<th>Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhancing electoral prospects/reputation</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>of governments and leaders</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controlling the policy agenda and easing the</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>business of government</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sustaining the broad values and direction of</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>government</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Score 12  Score 12  Score 4  Score 0  Score 0

The political aspect is positive as might be expected with such an apparently resounding and early success. If that had carried over to the other obligations then this thesis would not have been written as the outcomes would not have been of research interest.

In the next table a single choice is made for each criterion and all three aspects are in the one table. Here the results are unambiguous with a successful outcome being achieved.

Table 9.8 Process (X), Program (Y), Politics (Z) success assessed together for HI pellet plant

<table>
<thead>
<tr>
<th>Complete</th>
<th>Durable</th>
<th>Conflicted</th>
<th>Precarious</th>
<th>Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>X, Y, Z</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X, Y, Z</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X, Y, Z</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X, Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary of tables’ scores

The verdict is that the HI pellet plant was a complete and durable success for the processing obligation. However there were some issues raised in parliament at the time of the debate on
the early agreements\textsuperscript{974} that suggested there was some mild political disagreement at the
process stage that the provisions could have been more contractual in nature and this is
reflected in the scores in the conflicted column in the politics table 9.7. The result is even
clearer in the single choice table as the mild objections did not translate into any quibbles in
the opposition support of the agreement in parliament.

**Application of framework to all processing outcomes**

If all of the obligations had worked out like the steelmaking obligations, the use of
agreements to achieve processing could have been seen to be a complete failure. On the
other hand if the obligations had all worked out like the HI pellet plant they would have been
seen to be a complete success. The reality is that the story is a more mixed one and this
section tries to balance all of the outcomes to come to a view of success using the McConnell
model in a Matland “Political Implementation” world.

The non-success of the agreement obligations in achieving steelmaking (despite the benefits
received through projects accepted in place of steelmaking) and closures of processing plants
(pellets, HBI and HIsmelt), have caused a falling out of favour of agreements as a route to
processing.\textsuperscript{975} But nothing has taken their place. There is a case to think that this could be a
case of ‘throwing the baby out with the bathwater’ and may be regretted in the future. The
scoring and analysis below places little weight on those two factors and more on what was
actually achieved over time under agreements.

<table>
<thead>
<tr>
<th>Table 9.9</th>
<th>Process success across all obligations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete</td>
</tr>
<tr>
<td>Preserving policy goals and instruments</td>
<td>2</td>
</tr>
<tr>
<td>Conferring legitimacy</td>
<td>2</td>
</tr>
<tr>
<td>Building a sustainable coalition</td>
<td>2</td>
</tr>
<tr>
<td>Symbolising innovation and influence</td>
<td>3</td>
</tr>
<tr>
<td>Score 9</td>
<td>Score 11</td>
</tr>
</tbody>
</table>

\textsuperscript{974} See Chapter 3 Part 1.
\textsuperscript{975} See Chapter 10.
The process scoring shows that the policy success in process terms is split pretty evenly across the spectrum. While the agreements might still be viewed as having been useful, they were in need of reconsideration to maintain currency and support for their use, given this scoring outcome. This view is supported by the approaches tested in the 1990s agreement both in terms of the type and amount of processing and the attempts to ‘encourage’ processing through tonnage limitations. The success or otherwise of these changes in approach are yet to be seen, although the same issues for agreements of project economics being the final determinant of whether obligations will be met, and in what form, are still evident.

Table 9.10  Programme success across all obligations

<table>
<thead>
<tr>
<th></th>
<th>Complete</th>
<th>Durable</th>
<th>Conflicted</th>
<th>Precarious</th>
<th>Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting objectives</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Producing desired outcomes</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Creating benefit for target group</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Meeting policy domain criteria</td>
<td>3</td>
<td>4</td>
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<tr>
<td>Score</td>
<td>12</td>
<td>15</td>
<td>9</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

The programme scoring shows that agreements were at the successful end of the spectrum in terms of their achievements over time. This would be an encouragement to persist with agreements despite the mixed process results. The 1990s agreements provisions (new process success) would probably not have happened without this encouragement from the past agreements results (past programme success).

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976 See Chapter 5 Part 1.
977 Comments by Fortescue Mining Managing Director, Nev Power, reported in article by Kerr, Peter, and Evans, Nick, “FMG gets plant reprieve”, The West Australian WESTBUSINESS section, 3 July 2013, p.1. ‘…you only want to do [processing] if they are economically viable. To put in some lame duck processing plant that eventually fails is not going to do anyone any good. I think it’s fine to downstream value add, but only where it makes very strong commercial sense to do so.’ The same article stated that Barnett had said in the past that miners should not be forced to be manufacturers of products, including steel, unless it made commercial sense.
Table 9.11 Politics success across all obligations

<table>
<thead>
<tr>
<th></th>
<th>Complete</th>
<th>Durable</th>
<th>Conflicted</th>
<th>Precarious</th>
<th>Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhancing electoral prospects/reputation of governments and leaders</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Controlling the policy agenda and easing the business of government</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Sustaining the broad values and direction of government</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Score 6</td>
<td>Score 9</td>
<td>Score 8</td>
<td>Score 5</td>
<td>Score 4</td>
<td></td>
</tr>
</tbody>
</table>

The politics scoring suggests that some disquiet with the use of agreements could be expected. This would mean searches for improvements could be expected, as instanced in the 1990s, and lack of success from the changes would undermine support for agreements. This is indeed what seems to have happened in recent years.\(^{978}\)

In the next table a single choice is made for each criterion and all three dimensions are in the one table. The outcomes in program and politics make the agreements a durable success but process issues today are raising questions about whether to continue with processing obligations in agreements.\(^{979}\)

Table 9.12 Process (X), Program (Y), Politics (Z) success assessed together over all obligations

<table>
<thead>
<tr>
<th></th>
<th>Complete</th>
<th>Durable</th>
<th>Conflicted</th>
<th>Precarious</th>
<th>Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y, Z</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y, Z</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>X, Z</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Summary of tables’ scores

The lowest best score across all obligations is for a durable political success ie the policy falls short to a small or modest degree and broadly does what it set out to do.\(^{980}\) This is supported by the programme success which is also scored as durable. The concerning score would be for process success. That suggests future agreements could face problems at the process

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\(^{978}\) See Chapter 10.

\(^{979}\) See Chapter 10.

stage and could easily see the situation move sharply against agreements, particularly if the political view shifted in response. The good programme scores would help in the debate but would not be critical as they would require the acceptance of an argument that the future performance would at least match the past. These results are reflected in the single choice table outcomes.

**Conclusion**

The policy success framework developed by McConnell has been used to consider the success of agreement processing obligations. If they had all worked out like the steelmaking obligations agreements would have fallen out of favour long ago. On the other hand, if they had all been as successful as the HI pellet plant in meeting the agreement obligation, the future for agreements obligations would be secure. The effect of not having steelmaking has been to undermine agreements (despite the evident successes in terms of overall results from obligations) to the point where it would be problematic whether agreements would be used for that purpose again.

**Summary and conclusions**

This chapter has taken up the challenge of evaluating the success or otherwise of the implementation of the agreement processing obligations. It has done that by considering what could have been expected in the implementation process after concluding that the Matland model of “Political Implementation” best represented that process. Then the question of success has been considered broadly within the Matland model and more specifically in the McConnell framework.

The conclusion from the Matland discussion was that, while the state does not have steelmaking as a result of the agreements, it has achieved negotiated developments under the agreements in place of steelmaking. In the Matland model two success possibilities were considered. Effectiveness and outcomes meeting societal norms and values were considered to be a better basis on which to judge success than competitive success and fidelity. On this basis the steelmaking obligation outcomes would be considered as successes. The same conclusion would apply to the other obligations by extension as they have all been met as

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981 See Chapter 6 Parts 2 and 3 and Chapter 7 Part 4.
envisaged or through negotiated outcomes. This would place the agreement processing outcomes as being successful “Political Implementation”, although the processing achieved was not always as set out in an agreement as first negotiated.

The McConnell model was more difficult to apply as it considers things from the perspective of government as the primary actor. It does not include a private sector actor that has a direct and pivotal role in the success of the policy. Steelmaking using his model was not very successful, while the HI pellet plant is highly successful. When considering all of the agreement processing outcomes together, the analysis suggests that they were durable successes but could easily move towards the conflicted/precarious end of the success spectrum. This has made them vulnerable in process terms and the perception of failure in achieving steelmaking has had a strong negative influence in the political sphere. As a result it is likely that the FMG 2006 Agreement will be the last to have processing obligations.

The agreements entered in to in the 1990s built processing obligations around broad alternative investment requirements. MA obligations were used as an investment yardstick and to set timings for decision points rather than in real expectation. There was no mention of steel in the agreements or in parliament. This supports a view that that agreements as a means to the end of obtaining steelmaking had run their course and were not in prospect for future agreements.

The Matland “Political Implementation” model is ‘kinder’ to agreements as it expects there will be negotiations and that the outcomes each time would be seen as a success. If the negotiations see an agreed end to an obligation, then that is also a success. The McConnell model allows for concerns over how, when and to what extent the obligation is met to show through despite the success of negotiations. This allows it to predict what might happen in the future in terms of policy approach. Matland is a more backward looking analysis by comparison. This means that both can find reasonable cases for success in terms of the

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982 As seen in Chapter 6 Parts 1 and 3 and Chapter 7 Parts 1, 2 and 3.
983 See Table of agreement outcomes in Chapter 8.
984 See Chapter 10.
985 See Chapter 5 Part 1.
agreements of the 1960s and 1970s but McConnell provides some explanation for the presently observed move away from agreements by the government and opposition. See Chapter 10 for further discussion on this point.
Chapter 10

Making processing more certain under agreements

Introduction

Ratified agreements represent negotiated outcomes between the state and a company. This meant that the agreement companies agreed to the processing provisions in the agreements including types and amounts of, and timings for, processing. The state was trying to ‘lever’ off the access to resource to achieve economic development in the Pilbara through processing. The state could have a reasonable expectation that the agreed processing would be done but accepted that iron ore exports were needed as a first step and that processing had to be economic.987 However, it saw agreements as an ‘essential link in the chain of events to bring about great mineral and industrial progress.’988

At the time an obligation fell due, and the agreement company did not want to meet the obligation at that time, the state had four options available to it in responding to deferral requests:

1. Give a deferral, although not necessarily for as long as the company requested, and attach conditions.
2. Use whatever provisions there were in the agreement to test the company’s contentions in terms of its inability to meet the obligation at that time. These could take the form of direct or indirect (third/fourth party introduction) tests depending on the agreement.
3. Renegotiate the agreement provisions.
4. Refuse to give a deferral and threaten the company with a default notice under the agreement that could lead to the company losing the entire project.

As evidenced in earlier chapters of this thesis989 the usual outcome was a mix of the first three options that depended on the circumstances at the time. Option 1 was usually chosen the first time a deferral was sought, with option 3 chosen when it was clear that there was no immediate prospect for processing to take place. In no case was option 4 pursued. But

987 Court, WAPD, 27 October 1964, pp. 1910, 1911.
988 Court, WAPD, 26 September 1963, p. 1419.
989 See particularly Chapters 6 and 7.
equally in no case was a company excused from an obligation. The state, having obtained a promise under an agreement as negotiated, has never allowed a company to walk away from that promise.990

The problem for the state was that it had provided the resource (its main bargaining chip) to support early iron ore exports. The processing obligation was a future benefit that relied on the company deciding to proceed at that future time, qualified by an economic test. This meant there was considerable uncertainty for the state in terms of achieving processing outcomes through agreements. But could the agreement provisions have been drafted differently to reduce or remove this uncertainty?

There is no doubt that the obligation’s terms could have been made more likely to have been met, including making them more contractual in nature. However, the need to reach agreement with the company on the terms would always be a constraint. Also there was no way around an economic test coming to the fore at the time an obligation was due. A company would not be prepared to undertake processing that it saw as economically flawed and the state had conceded that uneconomic processing was not desirable. While the state did negotiate stronger provisions into agreements negotiated after 1974,991 the economic tests also became more prominent. The state could have provided a subsidy in some form or another beyond the royalty concessions for processing992 that were provided for in agreements. But the state was not in a position to do this, even if it wanted to, leaving aside questions about the wisdom of providing subsidies.993

Once the industry was established by the late 1960s Court started to think about the state moving into its customary role as the provider of regional services and infrastructure.994 He

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990 As shown in Chapters 6, 7 and 8.
991 These provisions were discussed in Chapter 5 Part 1, with the most significant being to include tonnage limitations that could see a company held to production limits until processing was achieved. Also there was the addition of obligation triggers based on cumulative production that could see obligations advanced in time. Both of these were designed to put pressure on the company to meet obligations in order to be able to expand production rates.
992 Court, WAPD, 3 November 1964, p. 2149.
993 Court, WAPD, 26 September 1963, p. 1418. Also Court, “Iron Ore Policy in Australia”, 10th Annual Congress of the Latin American Iron and Steel Institute, Caracas, Venezuela, 11 August 1970, where he said that: ‘As a state government, we are not able to undertake this kind of arrangement [borrow funds to provide infrastructure to support projects] because of the limitations on our internal and international borrowings…’
994 Court, “Iron Ore Policy in Australia”, where he said that; ‘…infrastructure is a job in which Governments should normally be the appropriate provider and thus able to recover larger royalties and/or other charges…when companies are relieved of the vast infrastructure burden, their profit flow will stand larger
saw that if the state took on responsibility for infrastructure provision, this would reduce the capital requirements on companies. However he saw the state costs being recouped through higher royalties or service charges. This would have amounted to cost shifting for the companies from capital to operating costs. At project start up this could be of value but once a company had cash flow from exports that would support borrowings, the cost shift would be of limited value. The major cost reduction seen by Court was from the lower interest rate at which governments could borrow. But that would have to outweigh the cost of less efficient provision of services by the state unless those services were provided at a loss (subsidy). Whether the balance between lower interest costs and higher operating costs would have seen major cost reductions for a company compared to its own supply of infrastructure is a moot point.

**Evolution of processing obligations**

There was the early and encouraging experience with processing obligations through the ahead of time success of the Hamersley Iron pellet plant and the high expectations held for MA processing. Also, as discussed earlier in this thesis, the outlook before the 1973 oil shock was favourable for processing in the Pilbara and there was a reasonable expectation that obligations would be met. The impacts from the 1973 oil shock and the second oil shock in the late 1970s meant that the iron ore industry did not expand as expected and the prospects for processing were greatly reduced.

No new agreements for greenfields projects were entered into after 1972 until after growth in iron ore exports resumed in the late 1980s. The new agreements continued to include requirements for processing, although the specified processing had shifted from secondary processing first, then steel/MA, to MA production only or its replacement by an agreed alternative project. No mention was made in parliament about the possibility of alternative

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995 Court, “Iron Ore Policy in Australia”, where he said that: ‘As a state government, we are not able to undertake this kind of arrangement [borrow funds to provide infrastructure to support projects] because of the limitations on our internal and international borrowings…’.

996 See Chapter 7 Part 1 and Court, “Iron Ore Policy in Australia”, where he said that; ‘One of the earlier developers built a two million tons a year pellet plant ten years ahead of time. The same developer will market metallised agglomerates in 1973-about 15 years ahead of time.’

997 See Chapter 4 part 2.

998 See Chapter 5 Part 1.

999 See Chapter 5 Part 1.
approaches to, or within, agreements during the debates on the Yandicoogina 1996 Agreement\textsuperscript{1000} and the FMG 2006 Agreement\textsuperscript{1001}. However, both Ministers Barnett and Bowler made positive statements in relation to the value still seen by the state in processing obligations.\textsuperscript{1002}

The pre 1974 agreements were for processing to be done at set times and for set amounts, irrespective of production levels, and with no specific mechanism for the state to seek to change the timing or increase the requirements in the future as production expanded. Essentially the company was given the resource within the 300 sq mile mining lease, as selected by the company, and allowed to export without restriction.\textsuperscript{1003}

Both company and government must have assumed that there would be sufficient resource to support exports until the obligations fell due and then for a long period in tandem with processing. But this ignored the possibility that, as exports rose over time, the resource base might not support both steelmaking and continued exports (given that to justify investment in steelmaking the works would have to operate for at least 20 years). For example, a steel obligation (1mt/a), if met as expected, would not see full production of steel until 31 years after exports commenced.\textsuperscript{1004} Once in production a steel project would be expected to operate for at least 50 years, probably more, if it was to be the basis for major industrial development. This meant that the resources in an agreement area would need to support at least 80 years of exports as well. The required resource base, assuming exports were held to 12.5mt/a (the state’s expectation when approving project proposals\textsuperscript{1005}), would be 1,000mt for exports and 70mt for steel. At 40mt/a (project production in early 1970s\textsuperscript{1006}) the resource base would need to be around 3,200mt.

\textsuperscript{1000} Agreement scheduled to the Iron Ore (Yandicoogina) Agreement Act 1996, No. 65 of 1996.
\textsuperscript{1001} Agreement scheduled to the Iron Ore (FMG Chichester Pty Ltd) Agreement Act 2006, No. 044 of 2006.
\textsuperscript{1002} In the Parliamentary debate on the Yandicoogina 1996 Agreement Barnett said that ‘The government believes processing obligations in iron ore agreements provide an important impetus for the iron ore producers to continue down this path’ (Barnett, \textit{WAPD}, 24 October 1996, p.7220). In the parliamentary debate on the FMG Chichester 2006 Agreement, Bowler said that ‘the secondary processing obligations are standard for modern iron ore agreements’ (Bowler, \textit{WAPD}, 5 April 2006, p. 1167) and that ‘the secondary processing obligations are considered to be an important way of promoting industry diversity and adding value to the state’s mineral wealth’ (\textit{WAPD}, 5 April 2006, p. 1168).
\textsuperscript{1003} Court, \textit{WAPD}, 26 September 1963, p. 1421.
\textsuperscript{1005} See Chapter 6 Part 1.
\textsuperscript{1006} See Chapter 6 Part 1.
This resource requirement provided a basis for a company to argue that a one-off setting of processing obligations was appropriate in a situation where exports were not restricted under the agreement. It is probably no surprise that when the state tried to argue for increased processing as production increased it failed to gain any ground.1007

The most recent agreements have continued with the fixed amount of processing approach (all require 3mt/a of MA or 2mt/a MA equivalent in alternative projects), with no specific provisions to increase the amount of required processing as production increased.1008

However the state did introduce some other concepts that took notice of production.1009 They were:

1. Processing obligation deadlines were the earlier of specific dates or production tonnages1010
2. Production could not exceed set amounts until proposals were approved for MA production1011
3. Production of MA was required to continue while iron ore was being produced1012

It remains to be seen whether these requirements would be more effective in achieving processing, although the recent deferral of the FMG obligations for three years on economic grounds is not encouraging.1013 Also the production rates in the Yandicoogina1996, Hope Downs 1992 and FMG Chichester 2006 Agreements are already greater than the initial limits.1014 This means that the state has approved increased rates rather than restrict production. Offsetting this is the triggering of the obligations at an earlier time because of

1007 See Chapter 6 Part 1.
1009 However the economic arguments against processing remain as the overriding consideration.
1010 150mt, 200mt and 150mt respectively as negotiated.
1011 30mt/a, 30mt/a and 45mt/a respectively as negotiated.
1012 The agreement provisions did not include the same obligation in relation to alternative projects, but it was implied by the requirement for the alternative project to ‘represent economic development in the state of value approximately equal to a plant for the production of 2 million tonnes of metallised agglomerates per annum’ (eg FMG 2006 Agreement, clause 20(6). This economic development would include construction and operation since the MA plant would have been both constructed and operated.
1013 Kerr, Peter and Evans, Nick, “FMG gets plant reprieve”, The West Australian WESTBUSINESS, 3 July 2013, p. 1. Fortescue Managing Director Nev Power defended the delay saying ‘…you only want to do those things if they are commercially and economically viable to do…To put in some sort of lame duck processing plant that eventually fails is not going to do anyone any good.’
these increased rates. However, even with the option of agreeing to alternative projects, the state is more likely to extend an MA obligation until a company comes forward with, and implements, an alternative project. Then the state would have certainty of outcome when agreeing to relieve the company of its MA obligations. Otherwise it could end up accepting an alternative project that could not be implemented, which would not be an improvement in its position.

At the date of writing (December 2014) the MA obligation under the Yandicoogina 1996 Agreement has been met through the establishment of the first stage of the HIsmelt commercial plant at Kwinana completed in 2005. The remaining 1mt/a MA obligation has recently been extended until 2024 through the acceptance of the Bungaroo water supply project as an alternative investment to steel under the Mount Bruce 1972 Agreement. Exports began under the Hope Downs 1992 Agreement (as varied in 2003) in late 2007 and proposals for MA will be due by the end of this year. Exports began under

1015 This was seen in the case of the acceptance of the Bungaroo water supply project as an alternative investment under the Mount Bruce 1972 Agreement as varied by the Iron Ore (Mount Bruce) Agreement Amendment Act, No 26 of 1987 after it was built. Media Statement by Barnett and Davies “Future water supply secured for West Pilbara”, 24 April 2014, http://www.mediastatements.wa.gov.au/Pages/ Colin-Barnett.aspx. Also author was advised in DSD letter, 4 July 2013 ‘…the Bungaroo water project which is being built by Rio Tinto is progressing well…It is anticipated that Rio Tinto may seek the Minister’s approval of that project as an alternative investment under the Mount Bruce Agreement’.
1017 See Chapter 7 Part 4.
1020 Total production from Hope Downs to end June 2014 was 184mt (Rio Tinto; Half year 2014 operations review, 7 August 2014, Fourth quarter 2012 operations review, 16 January 2013, First quarter 2012 operations
the FMG 2006 Agreement in 2008 and the tonnage limit of 150mt for the submission of MA proposals would have been reached just before the middle of 2012. This would have triggered the requirement to submit MA proposals after just over 4 years of production compared to the time requirement of 10 years of production. It was reported in July 2013 that FMG had received a three year extension of time (to June 2015) for the submission of proposals. This would have required the Minister to accept that MA production was not economic. In mid-2015 FMG can apply for a further 3 year extension or start down the alternative project route.

What this recent experience shows is that companies were still taking on agreement processing obligations and then asking for deferrals, knowing that the state would accept arguments based on economics and give deferrals when the obligations fell due. The most likely outcome was for extensions of time for the MA obligation until the company decided to come forward with, and implement, an alternative project. Both sides know that MA is most unlikely to be economic at any time in the future and that leaves the alternative project the most likely route to be followed. This has already been seen in the Yandicoogina 1996 Agreement where part of the obligation had already been met by an alternative project, the HIsmel stage 1 commercial plant.

In the end the required obligations can be changed to make them more likely to be met, but economics will always have the final say. Under the more recent provisions the state can choose to use tonnage limits to provide an incentive to process. However, the evidence is that it has allowed production increases that have made this an ineffective tool. The present...
outworking of the new concepts suggests they may be no more effective than the older concepts in achieving processing.

**Future use of agreements to require processing**

Perhaps a bigger question today is whether processing obligations will be negotiated into agreements for future greenfields projects or existing projects that want more resource to be included in their agreement projects. There is recent evidence that the state has moved away from its traditional approach of linking resource access and processing.

Just before the 2008 state election, Barnett, as opposition leader, was reported as conceding: ‘…that the little enforced “further processing” clauses in state agreements had failed to promote downstream processing because manufacturing was a completely different industry…We’ve been trying for 50 years to turn mining companies into manufacturing companies, but we’re never going to do that. What we need to do is get the manufacturers to come here’. \(^{1028}\) After his election he elaborated further by saying that: ‘Admirable as the further processing obligations are, they have not worked…The objective of value adding is still there, though the pathway is different…there is little to be said for trying to make an iron ore miner become a steel producer…And why would a raw material producer want to go into competition with their overseas customer?’ \(^{1029}\) He saw the better approach in having industrial estates available to the buyers of iron ore with all the necessary services and availability of reliable and competitive energy supplies because ‘...further processing of minerals is energy intensive’. \(^{1030}\) Rather similar comments by Barnett were also reported in the local press around the same time. \(^{1031}\)

This ‘idea’ from Barnett is actually little different from those expressed by Court in the early years of the iron ore agreements, although Court saw processing emerging through co-operation between the producers and the buyers (‘a world partnership with the northern hemisphere’), with WA production taking the place of early stage production by the

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1030 Ibid.
However Court saw a definite role for agreements as setting out the minimum processing expected of the iron ore developers (ie they were expected to take a lead role) whereas Barnett saw no role for the developers other than as raw material suppliers. Court also saw that the state needed to ensure that required infrastructure was in place.

There is a strong continuity of idea (the need to involve customers and to co-operate, not compete, and for government to have a role through infrastructure provision) but Barnett had moved away from agreements as a mechanism because he saw them as having failed through misdirection of effort. However he did not suggest a mechanism that would cause customers to invest in processing within the state, seeming to rely on them being attracted by the availability of infrastructure and energy within the state. Barnett also overlooked the active role an agreement company could play if it had the incentive of an obligation to do so. The evidence in recent years is that companies are happy to expand production and not make any effort to consider or promote processing. The state has indirectly supported this by not using the tonnage limitations in agreements, a behaviour that is consistent with the negative views held by Barnett on the value of processing obligations being placed on the producers.

The fall from favour of agreement processing obligations is shown by the following recent examples where obligations could have been expected, but have not been required by the state.

In a 2010 variation to the Hope Downs 1992 Agreement, provisions were included for the development of iron ore areas that had been held against the agreement since 1992 pending future negotiations. These negotiations could have been for a new agreement or for folding the areas into the Hope Downs 1991 Agreement; either way the areas could have been expected to be the subject of processing obligations. However no new or additional processing obligations were included in the agreement in the 2010 variation as might have been expected.

1032 Court, “Iron Ore Policy in Australia”.
1033 The efforts made by Hamersley Iron/Rio Tinto to develop the HIsmelt technology through demonstration and commercial plants at Kwinana being a good example (see Chapter 7). Also the initiative of BHP in putting the Pilbara energy project forward in place of its steel obligation (see Chapter 6).
1034 Agreement scheduled to Iron Ore (Hope Downs) Agreement Amendment Act, No 61 of 2010, clause 4(16).
1035 This did not attract any attention in Parliament as the Bill that contained the changes was one that had 10 other agreements being amended as part of providing for a possible amalgamation of the BHP and Rio Tinto mining operations in the Pilbara. The Hope Downs changes that involved the areas held against the agreement
The Roy Hill project is being developed by Hancock Prospecting, with an expected production of 55mtpa for 20 years from 2015.\textsuperscript{1036} This project has an agreement for its railway from the mine to the Port Hedland,\textsuperscript{1037} but does not have an agreement for the mine development. The railway agreement does not have any processing obligation, so this project will be developed without having a processing obligation. It could have been expected that a project of this size would have had an MA obligation in the form seen in the other recent agreements.\textsuperscript{1038} At the time Barnett repeated his views on the failure of agreements and on putting efforts into attracting manufacturers to developed and serviced industrial estates.\textsuperscript{1039} He was supported in his views of agreements by the opposition spokesman (W.J. Johnston) on resources.\textsuperscript{1040} In 2011, during the debate on changes to iron ore agreements to accommodate the possible merger of the BHPbilliton and Rio Tinto mining operations, both Barnett and Johnston repeated their 2010 views on agreements.\textsuperscript{1041}

FMG has recently opened the Solomon hub iron ore mines of Kings and Firetail with a combined capacity of 60mt/a.\textsuperscript{1042} These mines were developed without a mining agreement, which means there are no processing obligations despite the significant production from the mines.

This means there are three examples post the FMG 2006 Agreement where projects that could have been expected to have had processing obligations are being developed without any such obligations. Given the importance of precedence, the lack of processing in these cases makes it unlikely that there will be any new projects in the Pilbara developed under agreements that have processing obligations.

\textsuperscript{1036} Pilbara-Roy Hill Iron Ore Mine & Infrastructure, “Committed Projects”, Prospect Magazine July 2014-August 2014, p.29, Department of Mines and Petroleum and Department of State Development, Government of Western Australia.

\textsuperscript{1037} Agreement scheduled to Railway (Roy Hill Infrastructure Pty Ltd) Agreement Act, No 43 of 2010.

\textsuperscript{1038} Hancock Prospecting claims (http://hancockprospecting.com.au/go/currentprojects/roy-hill) that the Roy Hill project resource base is around 2.4bt (50% high grade, 50 % requiring upgrading). This would support iron ore exports for around 40 years at a rate of 55mt/a.

\textsuperscript{1039} Barnett, \textit{WAPD}, 7 September 2010, p. 6049.

\textsuperscript{1040} WJ Johnston, Shadow Minister for State Development; Energy; Mines and Petroleum, \textit{WAPD}, 7 September 2010, p. 6038.


\textsuperscript{1042} Pilbara–Solomon-Chichester expansion and Solomon mines project, “Committed Projects”, Prospect Magazine, December 2013, p.25, Department of Mines and Petroleum and Department of State Development, Government of Western Australia.
At any time in the past customers could have decided to process in the state but have not done so (not even as part of processing projects by agreement companies). This must throw considerable doubt on the likely success of a policy based on replacing processing obligations on producing companies with encouragement of customer interest.

The state has been able to exert leverage through having agreement processing obligations in place and it is often forgotten how much processing has been established under agreements. Given that all obligations under all agreements entered into in the 1960s and 1970s have been met by one means or another, the claims by Barnett that the provisions were little enforced and that agreements had failed would seem to be harsh. Having no processing requirements negotiated in return for access to resource would seem to place the state in a much poorer position than in the past when it now tries to have iron ore processed in the state by miners and/or manufacturers. The state is reduced to asking for favours rather than having some ability to ‘encourage’ processing in the state through its control of the iron resource and the existence of processing obligations obtained in return for access to the resource.

**Consideration of alternative approaches within agreements to achieving processing**

Although the wheel seems to have turned against agreements it is worth considering what changes could have been made to make agreement processing obligations more certain to be achieved as negotiated and to time.

The development model in Western Australia since the 1950s (as expressed through agreements) has been for private companies to take the lead and develop projects with government providing services (industrial and social), land, secure tenure and political support. In return government receives company taxes (commonwealth) and royalties (states) as revenue and economic development without carrying project risk. This is a different model from that in centrally planned economies and developing countries where government is more deeply involved and has greater power as well as inclination to invest in, and develop, projects. In the Western Australian environment agreements were designed to facilitate projects that were to be developed by private companies and they would not be expected (nor could they be required) to invest in uneconomic projects or processing.
The initial economic benefits the state wanted were from the development of mines in the Pilbara.\footnote{1043} These can be seen as having been achieved, probably beyond the wildest dreams at the time. Then it wanted to use the Pilbara development to industrialise the state by processing of iron ore through secondary processing to steel.\footnote{1044} The question is whether the state could have done more to make it more certain that processing would take place under the agreements while still respecting economic arguments.

One option might have been to demand that export of iron ore must be accompanied by production of processed iron ore at the same time. But this would have required the state to treat processing as an overriding objective, which it wasn’t at the time; rather it was the early development of the deposits that was seen as being important in the short term – with steel as an ultimate long term objective.\footnote{1045} The Pilbara was a remote area almost devoid of infrastructure and non-Aboriginal population when the iron ore industry commenced in the early 1960s.\footnote{1046} The state did not have the financial capacity to provide infrastructure and used the companies to provide what in other circumstances would have been built by the state and the companies charged for the use of that infrastructure.\footnote{1047}

The state could have tested this requirement by including it in the call for expressions of interest in taking up TRs. This would have been possible as the state could always have re-advertised with revised conditions in the light of responses or established a precedent through someone being prepared to accept the requirement. If the state had been aware of the extent

\footnote{1044} Court, “Iron Ore Policy in Australia”, where he said that Agreement companies ‘…have a period in which to generate a strong cash flow from the sale of untreated ore. This cash flow is expected to help them capitalise the processing phases up right up to the ultimate production of steel…Our agreements lay down generous time scales, but we rely on our developers to move into processing at the earliest possible opportunity’.
\footnote{1045} Court, \textit{WAPD}, 16 October 1963, p. 1681 and 26 September 1963, p. 1418.
\footnote{1046} Court, “Iron Ore Policy in Australia”, where he said that; ‘In the Pilbara iron ore fields as they existed in the early 1960s there was little or no development.’
\footnote{1047} Court, second reading speech for Hamersley range 1963 Agreement where he said: ‘The state has not the funds, nor is it likely to have the funds in the foreseeable future to undertake this sort of development [for towns, railways, ports etc] (\textit{WAPD}, 26 September, 1963, p. 1418) and second reading speech for Hanwright 1967 Agreement where he said; ‘As a state we do not have the money to build a single railway, a town or a port in these areas [if we could] the companies would not have to put up the huge sums of money necessary to build railways, ports, schools, hospitals, police stations and the like.’ (\textit{WAPD}, 13 September, 1967, p. 988). Also Court recognized that this meant that the Pilbara mining operations would have to carry extra costs to provide this infrastructure, but saw that the margins existed for these costs to be carried by the projects. However, he thought that the margins from processing were not such as to allow these capital costs to be carried. This was where government could step in and provide infrastructure using its ability to borrow money at lower costs and recover its investment through charges. See Court “Iron Ore Policy in Australia”.
of the high grade ore in the Pilbara this approach could well have been appealing as it would have had a stronger bargaining position. But it was not even aware of the existence of iron ore in the Pilbara, as demonstrated in Chapter 2, and was really advertising the opportunity to explore in locations of company choosing rather than access to known resources. In this situation it would have been unlikely that the approach would have even be considered.

In the early days when the Pilbara resource started to emerge an insistence on processing from the start of a project would most likely have seen the development of the Pilbara and its iron ore resources held back. This would have been hard to defend, particularly as it meant deliberately causing delays in royalty revenue to the state and tax revenue to the commonwealth. The coalition government view of wanting early development through iron exports was well expressed by Court\textsuperscript{1048} and would have made this approach impossible to implement in any event. Once the precedent of delayed processing was established in the Hamersley Range 1963 Agreement, the state had little option but to continue with that approach. But, despite the risks and issues, mandating processing as part of the initial export projects could have been a successful strategy if processing had been seen as an overriding, rather than an ultimate, objective.

Once the approach of delayed processing was instituted the question arises as to whether the state could have used the agreements to make processing more certain in the future. An option that does not seem to have been considered at the time was the tonnage limitations introduced into agreements since 1991.\textsuperscript{1049} These are potentially powerful tools. A processing plant in itself might be uneconomic, but once the benefits for the company of being able to expand production were factored into the equation the answer could be quite different. Barnett recognized the power of tonnage limitations when the BHP HBI plant was established.\textsuperscript{1050} But as Minister for State Development he has more recently allowed companies to expand beyond initial tonnage limits. The agreements allow for the resetting of the tonnage limits and this has presumably happened in the case of the Hope Downs 1992 and FMG 2006 Agreements. It would still be open to the state to use requests to further expand production to require processing before agreeing to expansions. The remaining

\textsuperscript{1048} Court, \textit{WAPD}, 18 October 1963, p.1681. ‘It is the government’s desire that we get these deposits opened up; and that roads, railways, ports and towns be established. It is our desire to get this done in our time, and not leave the iron ore lying in the ground, hoping that somebody will come along and do something about it.’

\textsuperscript{1049} See Chapter 5 Part 1.

\textsuperscript{1050} See Chapter 6 Part 3.
Yandicoogina 1996 Agreement MA obligation has recently been deferred for 10 years, but holding back on increasing production limits would be something that would be hard for the company to ignore. The good thing about this option is that it is now established as the preferred agreement processing approach and would be able to be included in future agreements based on precedent.

Another option would be for the state to increase royalties if processing was not done as required under the agreement. This would have provided a similar economic incentive to processing as the application of tonnage limitations.

The state did try this approach for the Hanwright 1967 and Nimingarra 1967 Agreements. They both provided for significant royalty increases for all shipped ore (past and future) if processing was not undertaken by set dates (Hanwright 100% increase and Nimingarra 50% increase), while retaining the royalty concessions for processing (and allowing shipped ore royalties to revert to agreement royalties). The royalty arrangements were never tested as the Hanwright 1967 Agreement provisions were removed by the Hanwright 1968 Agreement (in which, on the entry of HI into the agreement, the royalties were changed to match the Hamersley Range 1963 Agreement), and the Nimingarra 1967 Agreement did not lead to a mining project. These precedents were not followed in later agreements. The concept was an interesting one because it gives the state a strong future position without interfering with the aim of the early establishment of export operations in the Pilbara. However the idea of requiring payment of lump sum royalty for past exports would run counter to this and would seem to be a retrospective penalty. A more palatable approach could have been to apply the increased royalty to ore exports from the due date. Whether that could be negotiated for all exported amounts or only to the amount of ore not being processed is an open question. But on its own it would provide an incentive for processing and used in tandem with tonnage limitations the meeting of the processing obligation could have become a most attractive option for an agreement company. Certainly it is an approach that should be considered for future agreements.

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1051 See Chapter 7 Part 4.
1052 Bowler, WAPD, 5 April 2006, p. 1167.
1053 Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 19 of 1967, Clause 9(2)(j)(ix). This only lasted as a provision for around a year as it disappeared in the 1968 amending agreement (Agreement scheduled to Iron Ore (Hanwright) Agreement Act, No 49 of 1968).
Conclusion
All of the processing obligations from the 1960s and 70s have been met in one form or another, often after deferrals and renegotiations, something that would surprise many. However there has been a loss of support at the political level that probably means that processing obligations in agreements are a thing of the past.

Should new agreements be contemplated a useful improvement could be to include royalty penalties in tandem with tonnage limitations. Together they would allow the state to act in such a way that the economics of processing would be improved compared to stand alone economics. By processing the agreement company would be able to gain increased export volumes and avoid penalty royalties, both of which have positive economic benefits for the company. This would add to the economics of the processing and possibly be sufficient to have the company meet an obligation that it would not meet without these other benefits.
Chapter 11

Final review of processing obligations outcomes

Had the processing obligations that were negotiated into the agreements for direct shipping ore projects in the 1960s and 1970s been met according to their terms plants would have been established for the production of pellets and MA in the Pilbara (both in the 1970s) and for steel in the south-west in the late 1980s to early 1990s. (Steel making in the Pilbara was always unlikely). While the agreements did not require continued operation it would have been reasonable to expect the companies that built the plants to have operated them in order to recover the capital investment and produce a return on that capital. The reality was that pellet production failed for lack of markets and inferior quality, MA did not materialise because the coal based technology failed and the proven gas based technologies were not suitable for Pilbara iron ores. Steel was never established. The state did see HIsmelt technology demonstrated and commercialised at Kwinana as replacement for MA obligations only to have the stage 1 commercial plant close for lack of product market. The steel obligations were met through alternative projects that provided infrastructure in the Pilbara. (Port Hedland gas pipeline and associated power stations in the early 1990s and Bungaroo water supply completed in 2014). A mix of other obligations was met by the BHP HBI plant that failed, at great cost to BHP in both money and reputation, soon after it was established.

The question of how to assess these outcomes is not an easy or simple one to answer.

At one extreme the outcomes were not those required by the agreement terms and this could see the whole exercise as a complete failure. In particular, the failure to have a steel industry established could be seen to outweigh any positives that did happen. As established in this thesis that is such a strong view today. This has meant that the use of agreements to achieve processing is a dis-credited process and one not likely to be used in the future (as it has not been used since 2006 despite opportunities to do so).

This is arguably a harsh view because it is evident that the state did not give up on any obligation and always received something that it saw as being of value when agreeing to extend, vary or discharge an obligation. Using the Matland paper as a tool this thesis concludes that the implementation of the agreements is best seen as happening in a “political
implementation” environment where negotiated outcomes would be expected. This means that the state could not expect to be able to impose the obligations on the agreement company and would have to negotiate if the company was unwilling to meet an obligation on economic grounds. By the nature of negotiations it was therefore inevitable that time extensions would be granted, agreements would be varied and outcomes would be changed from those expected as the parties looked for common ground and successful conclusions to each set of negotiations.

A framework for analysis drawn from McConnell is used in this thesis to provide a basis for examining the achieved outcomes in this “political implementation” environment and to provide an assessment of them. That framework was used to consider how the outcomes would be viewed today as historical events and how they would be viewed (also today) if being used to set a path into the future. That analysis concludes that, as historical events, they were neither a complete success nor a complete failure. Within a spectrum between success and failure they are best seen as falling between durable (did what they set out to do) and conflicted successes (conflict over whether policy has succeeded or failed). As paths to the future they are best seen as falling between conflicted and precarious (edge of failure) successes, which goes some way to explaining why they are not likely to be used in the future.

This thesis has considered what could have been done to strengthen the agreements at the time of their negotiation to ensure a greater likelihood of the obligations being met as set out in the agreements. The real difficulty was that the state gave immediate access to ore for export in return for future processing. It was always going to be problematic that the future benefit would be provided to the state by the company. The state would have the dilemma of dealing with this while it wanted the exports to continue because of their economic benefits to the state. Having given over ownership of the resource as well, the levers available to the state were limited.

The alternative of making exports contingent on processing was a possible approach but was not even really considered as the state was keen to have the immediate benefits from export projects and saw that the cash flow from the exports would be needed in order for the companies to process in the future. The thesis conclusion is that the state needed to have
stronger incentives built into the agreements that would bring more issues into the economic decisions by the companies.

The use of tonnage limitations, where export expansions were restricted until obligations were met was one such incentive. This would mean that the company would need to factor into the project economics the revenue gain through being allowed to expand. Another was to impose a penalty royalty while processing was not being done. This would bring a further revenue ‘gain’ into the project economics. Both approaches have been used in agreements (tonnage limitations in post 1990 agreements and royalty penalties in two late 1960s agreements), although not in tandem. Given that the future use of agreements to set processing obligations is most unlikely, the opportunity may not be available in the future to test this approach. However there are obligations still to be met under three agreements with tonnage limitations (Yandicoogina 1996, Hope Downs 1992 and FMG Chichester 2006) and the tonnage limitations could prove to be an effective mechanism.

If the Hamersley Iron pellet plant had continued to operate, that would have been a very positive outcome for processing obligations. However it probably would not have been enough on its own to shift the agreements from their position in the McConnell framework. Had the Hismelt plant continued in operation, however, and resulted in a steel industry based on using the Hismelt product (as was planned), it is very likely that this would shifted both McConnell framework outcomes firmly towards complete success. Overcoming the BHP HBI plant’s technical issues would have assisted that shift and could have been enough to have moved the future path back in favour of agreements. These positive outcomes could have been achieved and this hope was the major reason that the state went along with the companies by agreeing to obligation extensions and discharges. This thesis makes the case that this was a risk taking exercise by both sides. This implied that both sides were prepared to see the risk crystallise while working to achieve the newly agreed outcomes. That the risk did crystallise in both cases does not mean that the state or the companies acted unwisely or unreasonably by taking the risks that they did.

The main issue in the end for agreement outcomes was the need for them to be economic. Since the state was expecting companies to use their capital and human resources to undertake the obligations, then it had to accept that only the company could make the final judgement on implementation. In the political environment of the 1960s and 1970s, when the
coalition government was in power for most of the time, direct investment by the state in a project was not in prospect. This would have been the case even if the state could have done so from its own resources. But even more to the point it did not have the financial resources and deliberately set out to develop the Pilbara using company money to provide infrastructure.

On balance the approach of having future processing requirements in agreements did at least offer a best of both worlds approach; the state would receive early regional development and mining royalties from iron ore exports and could look forward to possible benefits from processing through the agreed processing obligations. In the end economics was the ultimate test, with or without agreement obligations. In either case companies knew they would not be expected by the state to do uneconomic processing. But through the agreements companies were committed to seriously consider processing and the state had a seat at the table in that process through the agreements and the agreed obligations that it would not have had otherwise.

The agreements had an important role in the 1960s and 70s when the state was looking, as a principal, to achieve processing through its agents, the agreement companies. The view then was very much that the state could exert a lot of control over private investment. Even then the state had the usual principal problem of how to ensure that the agent did what the state wanted, although it would have not recognised that terminology then. In a situation where the state was using agents, such a departments, to achieve policy goals, the state could apply a great measure of direct control over performance. However, when it came to the companies having to spend their money to meet state objectives, the control over performance was a much more difficult issue.

The state did use the agreements proposals mechanism to ensure that infrastructure built in the Pilbara met state standards and the agreements required that third parties were able to use company infrastructure. In economic terms the projects had sufficient ‘excess rent’ to be able to carry state requirements and still be attractive investments. Processing was different in that it was seen by government not have the same excess rents.\textsuperscript{1055} The state also recognised

\textsuperscript{1055} Court, C. W., “Iron Ore Policy in Australia”, 10\textsuperscript{th} Annual Congress of the Latin American Iron and Steel Institute, Caracas, Venezuela, 11 August 1970. Court commented that “…as the processing commitments have to be faced, the marginal gain from investment will be less than from the first flow of high grade ore. Whereas a
that uneconomic processing was not of benefit to the state or a company.\textsuperscript{1056} The agreements allowed the state to test company contentions in regard to economics and this was done. Also the state never gave away on processing without gaining something in return.

A point to be borne in mind is that the Pilbara iron ore agreements discussed in this thesis were almost unique in their processing requirements. The state entered agreements for alumina, nickel and mineral sands developments in the 1960s and 70s and none of them involved processing obligations that were like the Pilbara agreements. In these other agreements companies were required to investigate processing and were expected to proceed with economic processing, but these were ‘soft’ obligations compared to the Pilbara obligations. While the state could do its own work and could challenge the companies on the economics of processing, the record is that the only processing that was established was for a nickel smelter at Kambalda and this was at company initiative. The state entered a number of industrial agreements that saw, among other things, a pigment factory in Bunbury\textsuperscript{1057}, cement works at Cockburn,\textsuperscript{1058} oil refinery at Kwinana\textsuperscript{1059} and fertiliser works at Kwinana\textsuperscript{1060}. These all involved processing from the start and did not have obligations for future processing. In that sense they were like the Cleveland Cliffs pilbara iron ore agreement\textsuperscript{1061} that assumed that all exports would be in the form of pellets because of the low grade of the ore and had no obligation for future processing.

The fact that there are no outstanding obligations to be met from the agreements of relevance to this thesis shows that there have been positive outcomes, but apparently not sufficient to ensure the continuation of support for including processing obligations in agreements. The counter argument is that no matter how slight the improvement was in the state position as a result of the processing obligations, surely it was to be preferred to having no position at all going forward.

\textsuperscript{1056} Griffith, \textit{WAPD}, 4 November 1964, p. 2187. Griffith commented that “No government would expect uneconomic or unrealistic operations to be undertaken…”

\textsuperscript{1057} Agreement scheduled to Laporte Industrial Factory Agreement Act, No 32 of 1961.

\textsuperscript{1058} Agreement scheduled to Cement Works (Cockburn Cement Limited) Agreement Act, No 45 of 1971.

\textsuperscript{1059} Agreement Scheduled to Oil Refinery (Kwinana) Agreement Act, No 1 of 1952.

\textsuperscript{1060} Agreement scheduled to Industrial Lands (Kwinana) Agreement Act, No 93 of 1964.

\textsuperscript{1061} Agreement scheduled to the Iron Ore (Cleveland Cliffs) Agreement Act, No 91 of 1964.
However a principal-agent relationship between the state and a company, as expressed in agreements, let alone processing obligations within agreements, is no longer an approach that is in great favour. Governments around the world since the stagflation of the 70s have moved to more market based approaches in their approaches to government, the economy and dealings with business. This means that companies are being left to make their own decisions on investments based on their own assessments of financial viability. Government still encourages investment but does this indirectly by acting neutrally in providing infrastructure and using laws that apply to everyone rather than to select companies. The provision of subsidies is not even considered any more.

This means there is only a weak principal-agent relationship between state and companies and often a reversal where companies see themselves as the principal and expect the state to be their agent (for example changing legislation to reduce cost and other burdens on companies or enacting legislation of benefit to companies, particularly where it reduces ‘red tape’). Even in relation to government owned enterprises they have either been sold or have been set up so that their operations are not controlled directly by government and they are expected to act like a private company in their business dealings, even where those dealings are with the government. The role by government in directing industry development has weakened since the 1960s to the point now it is virtually non-existent.

In this light it is not surprising that future agreements are most unlikely to have processing as part of their provisions. If there is to be iron ore processing in the future then it will be driven by company decisions made on financial grounds, not by obligations in an agreement. The environment that allowed for a principal-agent relationship that let those decisions be directly influenced by the state, through its ability to tie resource access to future processing, no longer exists in today’s market driven environment.
Appendix A

The Ambiguity-Conflict Model of Policy Implementation

In his 1995 paper Matland discussed the two major models of policy implementation; top-down and bottom-up.\textsuperscript{1062} He developed an alternative model that reconciled these models based on considerations of ambiguity and conflict levels that could characterise the policy being implemented.

‘Ambiguity’ considered how clearly the policy goals and the means of achieving those goals were defined.

‘Conflict’ considered the level of disagreement between organisations over the policy itself, the methods of achieving the policy and who would be responsible for the policy.

Matland identified four policy implementation paradigms using varying levels of conflict and ambiguity. They were; low conflict-low ambiguity where outcomes would be achieved through administrative implementation; high conflict-low ambiguity (political implementation); high conflict-high ambiguity (symbolic implementation); and low conflict-low ambiguity (experimental implementation).

The agreement processing obligations were clear on what was to be achieved, by whom and by when so they are best classified as being at the low ambiguity level. This classification rules out the symbolic and experimental implementation paradigms.

The conflict aspect is less clear because of the public-private nature of the agreements. The fit is not perfect with the Matland model and implementation could be through either of the administrative or political paradigms. The political implementation model where outcomes are determined by power could be expected to be a better fit than the administrative implementation model where the outcomes are virtually assured provided the policy maker dedicates sufficient resources to achieving the program.

Appendix B

Extracts from ‘Understanding Policy Success’ by Alan McConnell

The approach to considering policy success as set out in the McConnell book has been used in Chapter 9 Part 2 of this thesis. This appendix provides more information.

McConnell considers policy success in three dimensions; Process, Programmes and Politics as defined below.

‘Process’ deals with policy formulation and includes emergence of issues and the way in which problems are defined, options examined, stakeholders consulted and decisions are made.

‘Programme’ deals with what is implemented and the outcomes achieved in comparison to expectations established in the process stage.

‘Politics’ deals with how the formulated and implemented policy contributes government objectives to be seen to be successful and popular as a means to continue in power.

In Table 2.2 of his book he lists the criteria to be explored within each dimension.

The ‘Process’ criteria are:

- Preserving policy goals and instruments
- Conferring legitimacy
- Building a sustainable coalition
- Symbolising innovation and influence

The ‘Programme’ criteria are:

- Meeting objectives
- Producing desired outcomes
- Creating benefits for target group
- Meeting policy domain criteria
The ‘Politics’ criteria are:

- Enhancing electoral prospects/reputation of government and leaders
- Controlling the policy agenda and easing the business of government
- Sustaining the broad values and direction of government

McConnell gives these criteria meanings across a policy success spectrum from complete success through to complete failure. This spectrum includes ‘durable’, ‘conflicted’ and ‘precarious’ success. The following text is an interpretation of his longer text (which does not specifically define what he means by each term).

‘Complete’ success is where there is full and unambiguous achievement of all process, programme and political goals, but allowing for insignificant variations from the goals that have no meaningful impact.

‘Durable’ success is where the policy falls short of its aims to a small or modest degree but substantial progress has been made towards meeting goals.

‘Conflicted’ success is where the policy, and its success, is heavily contested but the support of government remains intact despite substantial departures from original goals and/or controversy over the policy.

‘Pecarious’ success is where the policy is on the edge of failure with major shortfalls or deviations from the original goals and conflicts over the future of the policy with the government showing doubt that the policy could be maintained going forward and thinking of alternatives.

‘Complete’ failure is where the policy does not achieve the goals that were set by government and it loses government support with the policy being finally terminated, but there can be minor successes on the way.

In the book, McConnell provides tables that consider ‘Process’, ‘Programme and ‘Political’ across the success spectrum and defines what degree of meeting a particular criteria would
place a policy at a point in his spectrum (found on pages 65, 67 and 73 and reproduced below using the table numbering from the book).

A policy would then be assessed against each criteria and placed under one of the spectrum headings for a particular criteria. In an ideal outcome the policy would fall in the same place in the spectrum under each criteria for each dimension and an unambiguous point on the spectrum would be determined. The policy would then have been clearly assessed as being one of complete success or failure or a durable or conflicted or precarious success. But even in the examples used by McConnell the policies do not fall into just one point in the spectrum for a particular criteria. What he then does is to make a judgement call in an overall summation and selects the most appropriate point to place the policy in the spectrum for that criteria.

McConnell does not give an example of a policy tested against all three criteria and how he would suggest a judgement call is made to provide a single spectrum point for the policy. He recognises the difficulty by commenting that: ‘…the process, programme and political dimensions of policy often sit at different points on the success-failure spectrum, because of inherent conflicts between the different types of success that are sought.’\textsuperscript{1063} But, as to how this is to be reconciled into a single view of the success of a policy, McConnell does not provide firm guidance, instead saying: ‘…when we examine a particular policy case, we could do much worse than think about an explanation revolving around policy-makers striving to achieve various combinations of process, programme and political success, making trade-offs between them while juggling feasibilities and risk.’\textsuperscript{1064} Given this uncertain advice, the approach taken in the thesis is to use his policy success model in a manner designed to reach firmer conclusions than McConnell may have envisaged from the use of his model.

\textsuperscript{1063} McConnell, Allan, 2010 \textit{Understanding Policy Success – Rethinking Public Policy}, Palgrave Macmillian, p.75.
\textsuperscript{1064} Ibid, p.234.
Table 3.1  Policy as Process; spectrum from success to failure

<table>
<thead>
<tr>
<th>Process success</th>
<th>Durable success</th>
<th>Conflicted success</th>
<th>Precarious success</th>
<th>Process failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preserving government policy goals and instruments.</td>
<td>Policy goals and instruments preserved despite minor refinements.</td>
<td>Preferred goals and instruments proving controversial and difficult to preserve. Some refinements needed.</td>
<td>Government’s goals and preferred policy instruments hang in the balance.</td>
<td>Termination of government policy goals and instruments.</td>
</tr>
<tr>
<td>Conferring legitimacy on the policy.</td>
<td>Some challenges to legitimacy, but of little or no lasting significance.</td>
<td>Difficult and contested issues surrounding policy legitimacy with some potential to taint policy in the long term.</td>
<td>Serious and potentially fatal damage to policy legitimacy.</td>
<td>Irrecoverable damage to policy legitimacy.</td>
</tr>
<tr>
<td>Building a sustainable coalition.</td>
<td>Coalition intact, despite some signs of disagreement.</td>
<td>Coalition intact although strong signs of disagreement and some potential for fragmentation.</td>
<td>Coalition on brink of falling apart.</td>
<td>Inability to produce a sustainable coalition.</td>
</tr>
<tr>
<td>Symbolising innovation and influence.</td>
<td>Not ground breaking in innovation or influence, but still symbolically progressive.</td>
<td>Neither innovative nor outmoded, leading to criticisms from both progressives and conservatives.</td>
<td>Appearance of being out of touch with viable alternative solutions.</td>
<td>Symbolizing outmoded insular or bizarre ideas, seemingly oblivious to how other jurisdictions are dealing with similar issues.</td>
</tr>
</tbody>
</table>

Table 3.2  Policy as programmes: the spectrum from success to failure

<table>
<thead>
<tr>
<th>Progressive success</th>
<th>Durable success</th>
<th>Conflicted success</th>
<th>Precarious success</th>
<th>Programme failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation in line with objectives.</td>
<td>Implementation objectives broadly achieved, despite some</td>
<td>Mixed results, with some successes, but accompanied by unexpected and</td>
<td>Some small outcomes achieved as intended, but overwhelmed by</td>
<td>Implementation fails to be executed in line with objectives.</td>
</tr>
</tbody>
</table>

1065 Ibid, p.65.
1066 Ibid, p. 67.
| Achievement of desired outcomes. | Outcomes broadly achieved, despite some shortfalls. | Some successes, but the partial achievement of intended outcomes is counterbalanced by unwanted results, generating substantial controversy. | Some small outcomes achieved as intended, but overwhelmed by controversial and high-profile instances of failures to produce results. | Failure to achieve desired outcomes. |
| Meets policy domain criteria | Not quite the desired outcome, but sufficiently close to lay claim to fulfilling the criteria. | Partial achievement of goals, but accompanied by failures to succeed, with possibility of high-profile examples; e.g., ongoing wastage when the criterion is efficiency. | A few minor successes, but plagued by unwanted media attention, e.g., examples of wastage and possible scandal when the criterion is efficiency. | Clear inability to meet the criterion. |
| Creating benefits for target group | A few shortfalls and possibly some anomalous cases, but the intended target group broadly benefits. | Partial benefits realised, but not as widespread or deep as intended. | Small benefits are accompanied and overshadowed by damage to the very group that was meant to benefit. Also likely to generate high profile stories of unfairness and suffering. | Damaging to particular target group. |
Table 3.3 Policy as politics; the spectrum from success to failure\textsuperscript{1067}

<table>
<thead>
<tr>
<th>Political success</th>
<th>Durable success</th>
<th>Conflicted success</th>
<th>Precarious success</th>
<th>Political failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhancing electoral prospects or reputation of governments and leaders.</td>
<td>Favourable to electoral prospects and reputation enhancement, with only minor setbacks.</td>
<td>Policy obtains strong support and opposition, working both for and against electoral prospects and reputation in fairly equal measure.</td>
<td>Despite signs of benefit, policy proves an overall electoral and reputational liability.</td>
<td>Damaging to the electoral prospects or reputations of governments and leaders, with no redeeming political benefit.</td>
</tr>
<tr>
<td>Controlling policy agenda and easing the business of government.</td>
<td>Despite some difficulties in agenda management, capacity to govern is unperturbed.</td>
<td>Policy proving controversial and taking up more political time and resources in its defence than was expected.</td>
<td>Clear signs that the agenda and business of government is struggling to suppress a politically difficult issue.</td>
<td>Policy failings are so high and persistent on the agenda, that it is damaging to government’s capacity to govern.</td>
</tr>
<tr>
<td>Sustaining the broad values and direction of government.</td>
<td>Some refinements needed but broad trajectory is unimpeded.</td>
<td>Directions of government very broadly in line with goals, but clear signs that the policy has prompted some rethinking, especially behind the scenes.</td>
<td>Entire trajectory of government being compromised.</td>
<td>Irrevocably damaging to the broad values and direction of government.</td>
</tr>
</tbody>
</table>

\textsuperscript{1067} Ibid, p. 73.
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