GOVERNMENT OF WESTERN AUSTRALIA

Environmental Protection Authority

Mr Simon Carter
CEO
IB Operations Pty Ltd
87 Adelaide Terrace
EAST PERTH WA 6009

Your Ref:
Our Ref: *CMS15074*
Enquiries: *Michael Pengelly, 6145 0800*
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Dear Mr Carter

NOTICE UNDER SECTION 39A(3)
Environmental Protection Act 1986

PROPOSAL: **Iron Bridge Port Facility**
LOCATION: **Port Hedland**
PROPONENT: **IB Operations Pty Ltd**
DECISION: **Not Assessed: Public Advice Given**

The Environmental Protection Authority (EPA) understands that you wish to undertake the above proposal which has been referred to the EPA for consideration of its potential environmental impact.

This proposal raises a number of environmental issues. However, the overall environmental impact of the proposal is not so significant as to require assessment by the EPA, and the subsequent setting of formal conditions by the Minister for Environment under Part IV of the *Environmental Protection Act 1986*. Accordingly, the EPA has determined not to assess this proposal.

Nevertheless, the EPA has provided the attached advice to you as the proponent, and other relevant authorities, on the environmental aspects of the proposal.

The EPA's decision to not assess the proposal is open to appeal. There is a 14-day period, closing 8 February 2016, during which, on payment of the appeal fee, an appellant may ask the Minister to consider directing the EPA to reconsider this decision or conduct a formal assessment.

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Information on the outcome of the appeals process is available through the Appeals Convenor's website, www.appealsconvenor.wa.gov.au, or by telephoning 6467 5190 after the closing date of appeals.

Yours sincerely

Anthony Sutton
Director
Assessment and Compliance Division

Delegate of the Chairman of the Environmental Protection Authority
Under Notice of Delegation No. 33 published 17 December 2013

25 January 2016

Encl: Public Advice

PUBLIC ADVICE UNDER SECTION 39A(7) ENVIRONMENTAL PROTECTION ACT 1986

IRON BRIDGE PORT FACILITY – PORT HEDLAND

Summary

IB Operations Pty Ltd (Joint Venture – Fortescue Metals Group (FMG) Iron Bridge Pty Ltd and Formosa Steel IB Pty Ltd), proposes to develop the Iron Bridge Port Facility (the proposal), located in the Port Hedland Port Precinct (immediately adjacent to the east of FMG's Anderson Point facility), in the Pilbara Region of Western Australia (Attachment 1).

The proposal would accept magnetite concentrate slurry via a pipeline from the North Star Magnetite Mine, located approximately 110 km south of Port Hedland, whereupon it would be dewatered and stockpiled within a fully enclosed shed prior to export. Existing infrastructure to Anderson Point would be used to load ore onto ships for export. Therefore, infrastructure required to out load and export the magnetite concentrate is not included in this referral.

The proposal would be constructed within a development envelope of up to 10.2 hectares (ha), situated in an area of sparse, predominantly open-canopy mangrove. There is no dredging as part of the construction of this proposal, or wastewater discharges to the marine environment.

The proposal was advertised for public comment and the Environmental Protection Authority (EPA) notes that no public comments were received.

The EPA has considered the proposal in accordance with the requirements of the *Environmental Protection Act 1986* (EP Act) and the *Environmental Impact Assessment Administrative Procedures 2012.* In making its decision on whether to assess the proposal, the EPA considered the 10 aspects of the significance test as set out in clause 7 of the *Environmental Impact Assessment Administrative Procedures 2012:*

1. values, sensitivity and quality of the environment which is likely to be impacted;
2. extent (intensity, duration, magnitude and geographic footprint) of the likely impacts;
3. consequence of the likely impacts (or change);
4. resilience of the environment to cope with the impacts or change;
5. cumulative impacts with other projects;
6. level of confidence in the prediction of impacts and the success of proposed mitigation;
7. objects of the Act, polices, guidelines, procedures and standards against which a proposal can be assessed;
8. presence of strategic planning policy framework;
9. presence of other statutory decision-making processes which regulate the mitigation of the potential effects on the environment to meet the EPA's objectives and principles for EIA; and

10. public concern about the likely effects of the proposal, if implemented, on the environment.

In considering the potential impacts of the proposal on Benthic Communities and Habitat, Air Quality and Atmospheric Gases (dust) and Amenity (noise), the EPA has had particular regard to:

- the small additional disturbance to mangrove communities of 2.01 ha;
- the small incremental loss of 0.08% of mangrove communities in the Port Hedland Inner Harbour; and
- the mitigation strategies proposed by the proponent to avoid and minimise impacts, including:
    - the alternative options analysis undertaken by the proponent in order to avoid and minimise impacts on mangrove communities;
    - the construction of a fully enclosed structure for stockpiles of magnetite to greatly limit dust and noise levels;
    - the provision of a Mangrove Protection and Management Plan;
    - the provision of a Dust Management Plan; and
    - the provision of a Noise Management Plan.

In summary, although the proposal raises a number of environmental issues, the EPA considers that the likely environmental effects of the proposal are not so significant as to warrant formal assessment. The EPA is of the view that the potential impacts of the proposal can be adequately managed through the implementation of the proposal in accordance with the referral documentation and the proponent's management and mitigation measures.

It is also noted that the proponent (IB Operations Pty Ltd) will need to apply to the Department of Environment Regulation (DER) for approvals through the Part V Division 2 (Clearing) and Division 3 (Works approval and licence) of the *Environmental Protection Act 1986* (EP Act).

1. Environmental Factors

Based on the proposal activities and the potential environmental impacts, the EPA has identified the following preliminary environmental factors relevant to this proposal:

a) Benthic Communities and Habitat;

b) Air Quality and Atmospheric Gases (dust); and

c) Amenity (noise).

There were no factors that were determined to be key environmental factors that would require formal assessment under Part IV of the EP Act. The EPA considers that the mitigation of the potential effects on the environment can be regulated by other statutory decision-making processes and through the implementation of proponent commitments and best practice measures in accordance with this advice.

2. Relevant Policy and Guidance

The EPA has given due consideration to the following relevant published EPA policies and guidelines, noting that other published policies and guidelines pertaining to this proposal were considered but not determined to be relevant:

a. Benthic Communities and Habitat

- Guidance Statement (GS) No.1, *For protection of tropical arid zone mangroves along the Pilbara coastline*, April 2001, Environmental Protection Authority, Western Australia

- Environmental Assessment Guideline (EAG) 3 - *Protection of Benthic Primary Producer Habitats in Western Australia's Marine Environment*, December 2009, Environmental Protection Authority, Western Australia

- Environmental Protection Bulletin (EPB) No. 14, *Guidance for the assessment of benthic primary producer habitat loss in and around Port Hedland*, Environmental Protection Authority, Western Australia

b. Air Quality and Atmospheric Gases (dust)

- EPB No. 2, *Port Hedland Noise and Dust*, January 2009, Environmental Protection Authority, Western Australia

- GS No.3, *Separation Distances between Industrial and Sensitive Land Uses,* June 2005, Environmental Protection Authority, Western Australia

c. Amenity (noise)

- GS No.3, *Separation Distances between Industrial and Sensitive Land Uses,* June 2005, Environmental Protection Authority, Western Australia

- EAG 13 - *Consideration of environmental impacts from noise*, September 2014, Environmental Protection Authority, Western Australia

Other Government Policy and Guidance

- *Port Hedland Air Quality and Noise Management Plan, The Port Hedland Dust Management Taskforce Report*, March 2010, Government of Western Australia

3. Advice and Recommendations regarding Environmental Issues

a. Benthic Communities and Habitat

The EPA's environmental objective for this factor is to *maintain the structure, function, diversity, distribution and viability of Benthic Communities and Habitat at local and regional scales.*

Consistent with EAG 3, the proponent has considered a number of options for the location of this proposal in order to avoid and minimise impacts to mangrove communities. These included alternative locations and designs that if implemented, would potentially result in greater impacts to mangrove communities.

Despite the proponent's attempts to avoid and minimise, the proposal would still result in the removal of approximately 2.01 ha of mangrove, which represents a loss of 0.08% of the original extent of mangroves within the Local Assessment Unit (LAU) shown in EPB 14. The proposal avoids most of the high-value closed canopy mangroves and the proponent also demonstrated through modelling of hydrodynamic processes that there are unlikely to be any indirect impacts on mangroves from sediment accretion or erosion as a result of the proposal.

The EPA notes that the current cumulative loss level of mangrove communities from historical and approved projects is currently above the 10% Cumulative Loss Guideline (CLG) relevant for Category E (Development area – e.g. port or inner harbour area) (as described in EAG 3). Based on the most recent assessment of the Lumsden Point Cargo Facility (EPA Report 1503, 2014) the current cumulative loss is at around 14.45%.

EAG 3 recognises that the CLGs are not considered to be rigid limits or acceptability criteria. The environmental acceptability of any loss of benthic primary producer habitat will, in all cases, be the judgement of the EPA based on based largely on its consideration of proponents' application of avoidance and minimisation measures in the first instance, and the overall risk to ecological integrity of the LAU if a proposal were allowed to be implemented.

The loss of an additional 2.01 ha of mangroves from this proposal would result in an increase from 14.45% to 14.53% in the agreed LAU. This represents an incremental increase of 0.08%.

Unlike other significant proposals that have been assessed by the EPA within the Port Hedland LAU, the majority of the mangrove loss that would occur includes scattered, open canopy vegetation.

Summary

Having particular regard to:

- the important habitats associated with the Port Hedland Inner Harbour mangrove-fringed tidal creek system;
- the proponent's options analysis as part of demonstrating avoidance and minimisation to mangrove communities;
- the avoidance of high-value (seaward edge) closed-canopy mangrove communities;
- the small proposed residual impact to the mangrove communities of 2.01 ha of open-canopy scattered mangroves;
- the cumulative loss of the proposed and historical/approved losses in the Port Hedland Inner Harbour increasing from 14.45% to 14.53%. This represents a small incremental increase of 0.08%, which is highly unlikely to represent a significant loss in terms of overall contribution to primary productivity and ecological integrity in the area, or in the region;
- the proponent's commitment to revise its Mangrove Protection Management Plan to include this proposal. The Mangrove Protection Management Plan has a monitoring component which monitors mangrove health and recruitment at

potential impact sites and rehabilitation sites to better understand mangrove health response to the impacts of existing and approved proposals; and

- the proponent's commitment to undertake mangrove rehabilitation works in the port area in consultation with the Port Hedland Port Authority who have a port-wide Mangrove Rehabilitation Plan in place,

the EPA considers that the proposal can meet the EPA's objectives for Benthic Communities and Habitat and that the likely environmental effects of the proposal are not so significant as to warrant formal assessment provided that the proposal is implemented in accordance with the referral documentation and the proponent's mitigation measures. It is also noted that that the potential impacts on mangroves can be dealt with under Part V Division 2 (Clearing) of the EP Act.

b. Air Quality and Atmospheric Gases (dust)

The EPA's environmental objective for this factor is *to maintain air quality for the protection of the environment and human health and amenity, and to minimise the emission of greenhouse and other atmospheric gases through the application of best practice.*

The proposal would receive magnetite concentrate from the approved North Star Mine through an approved pipeline (to the FMG boundary) as a slurry. In order to minimise the potential for fugitive dust all stacking and reclamation would occur within a fully enclosed stockpile structure. Belt wash stations would also be installed at specific out load circuit transfer stations to avoid 'carry back' of the product. Despite this, the risk of dust remains from using the exiting circuits to load the ore onto ships.

The proponent has conducted modelling of dust emissions for several scenarios, including the cumulative scenario (existing, approved export port operations and this proposal). FMG currently have a licence and relevant approvals to export hematite ore. The cumulative scenario was modelled to determine the impact of the introduction of 11 million tonnes per annum (Mtpa) of magnetite concentrate in addition to the current approved export tonnage for hematite (i.e. 165 Mtpa hematite plus 11 Mtpa magnetite).

The proponent's modelling demonstrates that the interim dust management criteria in the *Port Hedland Air Quality and Noise Management Plan* would be met. When compared to previous cumulative modelled scenarios where all product (under a 176 Mtpa scenario) was assumed to be hematite ore, it is also noted that there is a reduction in the predicted number of exceedances at Taplin Street. This is due to the low emission characteristics of the magnetite product, which has a higher moisture content than hematite, from stacking, reclaiming and ship loading.

The DER have advised that the proposed dewatering of magnetite slurry would require regulation under the *Environmental Protection Regulations* 1997 as it meets the definition of Category 5 in Schedule 1. The DER also advised that dust emissions could be considered under Part V of the EP Act and managed through the works approval and licensing processes.

It is also noted that FMG have in place an approved Dust Management Plan for the management of the existing out loading circuit which is to be shared with IB Operations Pty Ltd.

Summary

Having particular regard to:

- the design and location of the proposal, in particular, the fully enclosed structure that would contain the stockpiles;
- the provision of a Dust Management Plan for the new facility;
- the results of the modelling undertaken demonstrates a potential overall reduction in the number of exceedances of dust emission levels at the Taplin Street receptor; and
- the low risk of emissions from the handling of the magnetite ore due to the high moisture content,

the EPA considers that the proposal, implemented in accordance with the referral documentation, is unlikely to have a significant impact on the preliminary environmental factor of air quality and atmospheric gases. The EPA notes that the impacts to air quality as a result of dust emissions can be regulated through other statutory processes including the works approval and any licensing process under Part V of the EP Act.

c. **Amenity (noise)**

The EPA's environmental objective for this factor is *to ensure that impacts to amenity are reduced as low as reasonably practicable.*

The proponent conducted modelling of noise emissions associated with the proposal consistent with EAG No. 13 and assessed compliance with the *Environmental Protection (Noise) Regulations* 1997 (Noise Regulations) at the nearest noise sensitive receivers. As the proponent has undertaken site-specific studies and conducted modelling to determine whether the proposal would increase cumulative noise levels, the EPA's guidance on generic buffers between industrial and sensitive land uses has not been give further consideration for the proposal.

Based on the noise modelling, the proponent concluded that the proposal on its own would be compliant with the Noise Regulations and under a worst case scenario, would cause a negligible increase to the cumulative noise levels within the air shed. As such, the proponent concluded that no noise mitigation would be required for the proposal.

The DER have advised that noise emissions could be considered under Part V of the EP Act and managed through the works approval and licensing processes.

Summary

Having particular regard to:

- predictions that the proposal would comply with the Noise Regulations; and
- that the proposal, including under a worst-case scenario, would cause a negligible increase to the cumulative noise levels within the air shed,

the EPA considers that the proposal, implemented in accordance with the referral documentation, is unlikely to have a significant impact on the preliminary environmental factor of Amenity (noise). It is also noted that the potential impacts can

be mitigated and regulated through other statutory processes, including the works approval and any licensing process under Part V of the EP Act, and the Noise Regulations.

Attachment 1

Figure 1 - Proposal location and general layout