

Dust Management Program for Finucane Island and Nelson Point Operations, Change to Environmental Conditions

BHP Billiton Iron Ore Pty Ltd

**Section 46 Report and recommendations
of the Environmental Protection Authority**

**Environmental Protection Authority
Perth, Western Australia
Bulletin 1247
January 2007**

Environmental Impact Assessment Process Timelines

Date	Progress stages	Time (weeks)
23 Nov 2005	Request received from Minister	–
4 Sept 2006	Proponent Document Released for Public Comment	40
30 Oct 2006	Public Comment Period Closed	48
27 Nov 2006	Final Proponent response to the issues raised	52
22 Jan 2007	Final version of proponent's commitments received	60
29 Jan 2007	EPA report to the Minister for the Environment	61

Summary and recommendations

BHP Billiton has requested a change to its existing environmental conditions for dust management at its iron ore operations at Finucane Island and Nelson Point, Port Hedland. The purpose of the proposed change to conditions is to further reduce dust emissions. BHP Billiton intends to achieve this reduction even though it will be producing substantially more iron ore to meet increasing demand from overseas markets.

The proposed change to conditions is being considered under Section 46(1) of the *Environmental Protection Act 1986* (EP Act). Section 46(1) requires the Environmental Protection Authority (EPA) to report to the Minister for the Environment on whether or not the proposed changes to conditions should be allowed.

This report provides the EPA's advice and recommendations to the Minister for the Environment on the proposed change to environmental conditions.

The change to conditions proposed in this report relate only to dust management and, as such, will not constitute approval for BHP Billiton's planned major upgrade of facilities. Approvals for the facilities upgrade would be considered separately under Part V of the EP Act and, if necessary, through a separate EPA assessment under Part IV of the EP Act.

Relevant environmental factor

It is the EPA's opinion that there is one environmental factor which requires detailed evaluation in this report:

- Dust management.

Conclusion

The EPA has concluded that the proposed changes to conditions are appropriate and will provide for significant improvements to dust management and water-use efficiency as well as improved transparency and responsiveness to community concerns.

Current and proposed upgrades to BHP Billiton's facilities at Port Hedland provide an opportunity to further reduce dust emissions. It is therefore timely to put in place more stringent performance targets.

To this end it is proposed that BHP Billiton's existing set of nine environmental management commitments (Appendix 3) be deleted and replaced with a condition imposing a set of new and explicit environmental targets and actions (Appendix 4). The intention is to provide for:

- Improved dust management;
- Improved water-use efficiency; and,
- Improved transparency and responsiveness to community concerns.

The EPA notes that the proposed improvements to dust management are contingent to a large extent on the proposed upgrade (Rapid Growth Phase 4 or "RGP4") to BHP Billiton's facilities associated with shifting crushing and screening inland to the proposed Newman Hub. BHP Billiton will not make a definite commitment to RGP4 until the second quarter of 2007. In the event that RGP4 does not proceed (for example because of an unforeseen change to market conditions), it is expected that the environmental conditions relating to dust management will need to be further reviewed.

The EPA also notes that it may be necessary to further review the conditions pending the final outcomes of:

- (1) the Cumulative Dust Assessment for Port Hedland which is being coordinated by the Department of Industry and Resources; and,
- (2) the final report on the Port Hedland health studies which are being coordinated by the Department of Health.

The results of both the cumulative dust assessment and the health studies are expected to be available by early 2008.

The EPA has also provided some other advice in relation to:

- other matters raised in submissions;
- the development of a comprehensive dust monitoring program for Port Hedland;
- the need for better land use zoning in Port Hedland; and,
- noise from BHP Billiton's facilities.

Recommendations

The EPA submits the following recommendations to the Minister for the Environment:

1. That the Minister notes that this report is pursuant to Section 46(1) of the *Environmental Protection Act 1986* ("EP Act") and thus is limited to consideration of proposed changes to the environmental conditions in Ministerial Statement 433, published on 14 November 1996.
2. The EPA recommends that the Minister considers the report on the key environmental factor as set out in Section 3.
3. That the Minister notes that the EPA has concluded that the proposed changes to the conditions are appropriate and will provide for significantly improved management of dust and improved water-use efficiency, as well as increased transparency and responsiveness to community concerns.
4. The Minister imposes the amended condition detailed in Appendix 4 of this report.
5. The Minister notes that the change to conditions proposed in this report relate only to dust management and, as such, does not constitute approval for BHP Billiton's planned major upgrades of facilities. Approvals for the facilities upgrades would be considered separately under Part V of the EP Act and, if necessary, through a separate EPA assessment under Part IV of the EP Act.

Conditions

The EPA recommends that the existing Environmental Conditions applied to the project (Ministerial Statement 433 published on 14 November 1996), be subject to modifications as follows:

1. Condition 1 be updated (as set out in Appendix 4) to reflect the fact that new management targets and actions will now apply.

Other advice

The EPA has also provided some other advice in relation to:

- other matters raised in submissions;
- the development of a comprehensive dust monitoring program for Port Hedland;
- the need for better land use zoning in Port Hedland; and,
- noise from BHP Billiton's facilities.

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1. Introduction and background

The Minister for the Environment has requested the Environmental Protection Authority (EPA) to provide advice under Section 46(1) of the *Environmental Protection Act 1986* on BHP Billiton's proposed changes to environmental conditions. The purpose of the proposed changes is to further improve dust management at the proponent's Port Hedland operations.

The improvements to dust management are discussed in section 2. Section 3 contains "Other Advice", section 4 outlines the changes to conditions, section 5 contains the EPA's conclusions and Section 6, the EPA's recommendations.

References are listed in Appendix 1. A list of people and organisations that made submissions is in Appendix 2 and the existing Environmental Statement is in Appendix 3. The proposed revisions to the Statement are provided in Appendix 4.

Appendix 5 contains a summary of the public submissions and the proponent's response. The summary of public submissions and the proponent's response are included as a matter of information only and do not form part of the EPA's report and recommendations.

2. Dust management

The problem of dust at Port Hedland

Dust is a significant issue for the Port Hedland community and concerns have been expressed about both amenity and possible health impacts from high dust levels in the town. Management of dust in Port Hedland is made particularly complex because there is not an adequate buffer between the town and BHP Billiton's facilities. In addition, the fact that there are significant background levels of dust from natural sources and from several other industrial facilities in the town means that it is extremely difficult to determine the proportions of dust from different sources. It is clear however that BHP Billiton's operations are a significant contributor to overall dust levels in Port Hedland.

The Department of Industry and Resources (DOIR) has commissioned a major independent cumulative dust assessment for the Town of Port Hedland. The aim of the cumulative assessment is to clearly define the dust problem in the town as a basis for future planning and more effective dust management for the town as a whole, covering all major dust sources.

Previous EPA assessment

Management of dust from BHP Billiton's facilities at Port Hedland was originally assessed by the EPA in 1996 through a Consultative Environmental Review (CER) process (BHP Iron Ore Pty Ltd, 1996). EPA bulletin 831 (EPA 1996) and the subsequent Ministerial Statement (Statement 433, 14 November 1996) addressed dust management in relation to both community amenity and health.

Ministerial Statement 433 required BHP Billiton to adopt best practice management through a dust management program. The company's dust management program was to be based on the following performance targets (based on ambient dust).

Parameter	Units	Averaging time	Performance targets
Total suspended	$\mu\text{g}/\text{m}^3$	24 hours	260

particulates (TSP)			
Particles (as PM ₁₀)	μg/m ³	24 hours	150

Table 1. Revised performance targets, method of measurement and performance assessment

Performance Aspect	Proposed Target	Method of Measurement	Performance Assessment
Air Quality Related - Long Term Average	Improvement in the annual average PM ₁₀ monitored at the Hospital site to a long-term target of 30 µg/m ³	PM ₁₀ monitored at the Hospital monitor (continuous, 10 minute interval), and recorded monthly as a rolling annual mean	Achieving a reduction in monitored levels, consistent with predictions
Air Quality Related – Short Term Average	Improvement in the 24 hour average PM ₁₀ monitored at the Hospital site to a long-term target of 70 µg/m ³ with less than 10 exceedences per year	PM ₁₀ monitoring at the Hospital monitor (continuous, 10 minute interval), and recorded daily as a 24 hour mean	Achieving a reduction in monitored levels, consistent with predictions
Amenity Related	Improvement in the annual average TSP monitored at the Hospital site to a long-term target of 65 µg/m ³	TSP monitored at the Hospital monitor (HiVol 24-hour), and recorded monthly as a rolling annual mean	Achieving a reduction in monitored levels, consistent with predictions
Amenity Related – Community Perception	Improvement in amenity (relating to BHPBIO's iron ore dust) within the western end of Port Hedland	Key indicators included in Social Monitoring and Evaluation survey	Social Monitoring and Evaluation survey
Amenity Related – Community Satisfaction	Improvement in community satisfaction with Company management of dust impacts	Key indicators included in Social Monitoring and Evaluation survey	Social Monitoring and Evaluation survey
Operational Response	Effectively employ real time dust event mitigation process	Audit evidence to demonstrate effective employment of process	Annual audit measurement and reporting
Water-Use Efficiency	A 10% reduction in fresh water consumption per tonne of iron ore (produced) during the period 2006 to 2012.	Metering will be applied to capture volumes (megalitres) for annual reporting purposes.	Annual audit measurement and reporting

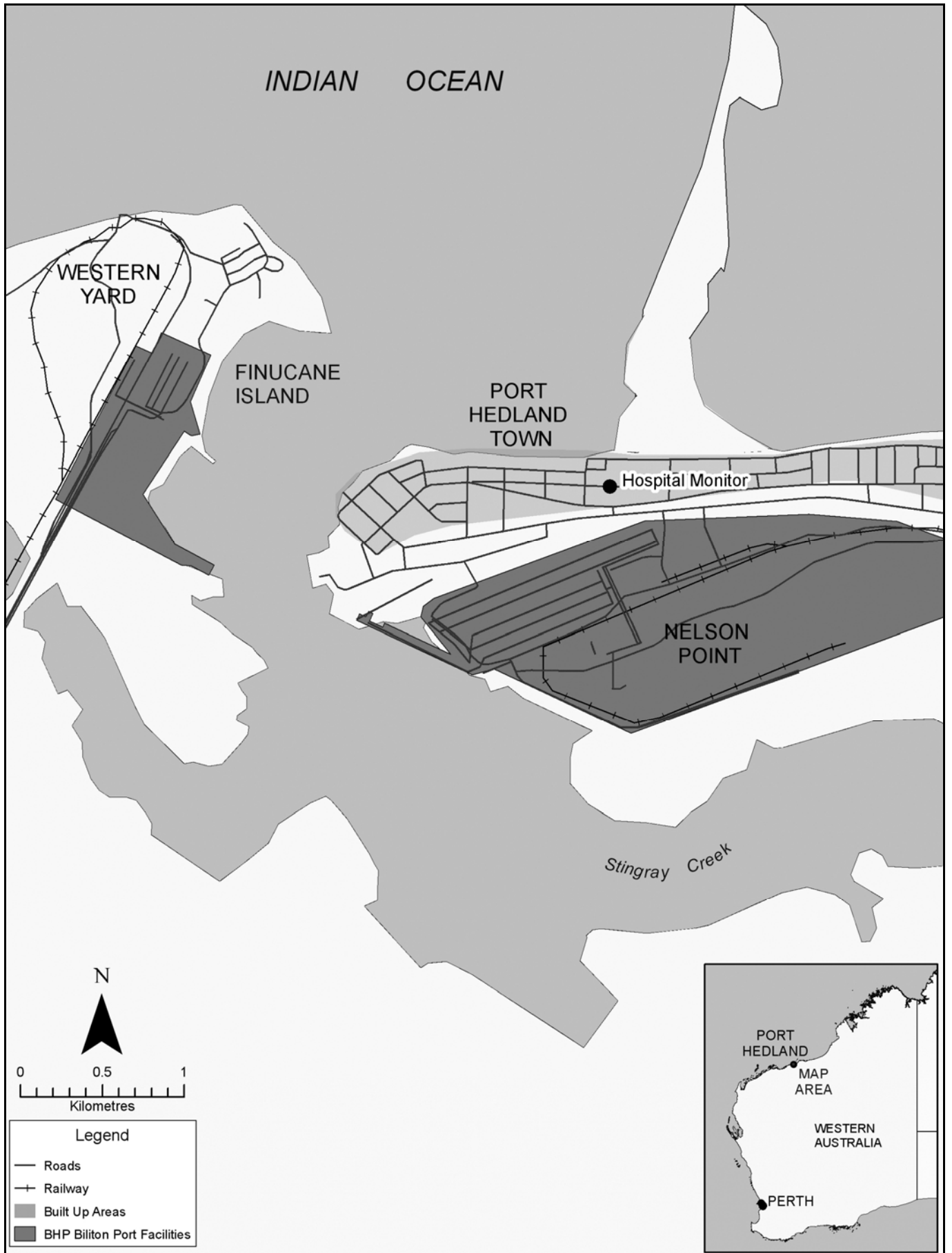


Figure 1: Location of BHP Billiton’s Port Hedland Operations

Improvements in dust management to date

Section 4.1 of the proponent's section 46 document (BHP Billiton, 2006) documents the company's performance to date in improving dust management. There has been a significant improvement in performance since 2001/2002. Since that time there have been no recorded exceedances of the 24 hour limit target for PM₁₀. For TSP there has been a reduction in the number of exceedances of the target since 2001, with between zero and two exceedances recorded at each of the two monitors (Hospital Monitor and Harbour Monitor).

Proposed further improvements to dust management

Current and proposed upgrades to BHP Billiton's facilities at Port Hedland provide an opportunity to further reduce dust emissions. It is therefore timely to put in place more stringent performance targets.

To this end it is proposed that BHP Billiton's existing set of nine environmental management commitments (Appendix 3) be deleted and replaced with a condition imposing a set of new and explicit environmental targets and actions (Appendix 4). The intention is to provide for:

- Improved dust management;
- Improved water-use efficiency; and,
- Improved transparency and responsiveness to community concerns.

Table 1 (below) details the proposed new, expanded, set of performance targets, comprising six targets for dust management and one for water-use efficiency.

Note: the entry for the short-term air quality target in the proponent's section 46 report (BHP Billiton 2006 page 8-10) was incorrect and has been amended in table 1, row 2, column 3 below.

Agency and public comments

Fourteen public submissions were received. The main points raised in submissions were:

- The Section 46 review of conditions is premature and should be delayed to allow completion of health studies now underway (cellular studies, hospitalisation study and literature review).
- The presentation of monitoring data should be shown against the interim target reference points with a reference to the NEPM to facilitate the evolution of a preferred regional ambient air quality standard for particulates. BHP Billiton needs to demonstrate continuous improvement.
- The dust monitoring program is inadequate. More monitoring stations are required and should be located to be more representative of dust impacts on the community. Monitoring should be independent and there needs to be improved transparency including making real time short duration dust data available.
- There needs to be significantly better water management. Existing water management on site is perfunctory.
- BHP Billiton should make a definite commitment to proceed with relocation of facilities to the Newman Hub before any further approvals are given.

In addition, the Department of Health (DOH) raised technical issues relating to short-term dust monitoring as discussed below.

Assessment

The EPA notes the view expressed in submissions that the present section 46 assessment should be delayed pending the conclusion of health studies. However, because BHP Billiton's intention is to *further decrease* dust emissions, the EPA considers that it is appropriate to proceed with the section 46 assessment. In carrying out this assessment, the EPA has received technical advice from the DOH in regard to public health issues.

The DOH has pointed out that short-term dust events are most significant for members of the community with particular health sensitivities (e.g. asthmatics). In this regard, the DOH has stated that there needs to be a health-related PM₁₀ dust target measured against continuous monitoring data, recorded hourly as a 24 hour rolling mean with further support provided by monitoring results from a HiVol monitor (high volume dust monitor – a dust monitoring machine somewhat like a large vacuum cleaner and which is used to obtain a reading for total mass of dust over a 24 hour period). BHP Billiton has committed to provide continuous 24 hour monitoring data as requested by DOH. The company has also made a commitment to make real-time dust monitoring data available on the Web for public information.

In discussions with the Department of Environment and conservation (DEC), BHP Billiton has agreed that there is a need to more clearly identify the sources of peak fugitive dust events (dust “spikes”) to ensure more effective preventative action. BHP Billiton has indicated that, to this end, it has improved its internal procedures to make dust control an explicit business priority and to make senior staff directly accountable for dust control performance. Making real-time dust data available on the Web, as BHP Billiton has proposed, should help build community confidence that the company is serious about controlling dust.

BHP Billiton has also made a commitment to continue to implement its Community Engagement Program, which includes:

- continuing to work with the community to address amenity issues and concerns; and,
- working with industry and Government to monitor and manage cumulative impacts through the Port Hedland Air Quality Reference Group.

The EPA notes that a joint industry-Government study is to be carried out to develop a comprehensive and fully representative dust monitoring program for Port Hedland. Based on the results of that study, it is expected that further dust monitoring stations will be added to the existing dust monitoring network.

In regard to water used for dust control, the EPA notes that BHP Billiton has made a specific commitment to improve water-use efficiency and, to that end, has developed a Water Use Efficiency Plan. The EPA has been advised by the Department of Water that the Water Use Efficiency Plan is technically sound and appropriate. BHP Billiton has made a commitment to progressively improve water-use efficiency to achieve a 10% reduction in water use per tonne of product by 2012.

The EPA notes that the proposed improvements to dust management will depend to a large extent on the proposed upgrade (Rapid Growth Phase 4 or “RGP4”) to BHP Billiton's facilities associated with shifting crushing and screening inland to the proposed Newman Hub. BHP Billiton will not make a definite commitment to RGP4 until the second quarter of 2007. In the event that the RGP4 does not proceed (for example because of an unforeseen change to market conditions), it is expected that the conditions of approval will need to be further reviewed.

Conclusion

Having regard to the fact that BHP Billiton's proposal is to:

- Substantially *decrease* dust emissions through a significant upgrade of facilities, best-practice management and continuous improvement;
- Improve water use efficiency; and,
- Increase transparency by better engagement with the community and by providing real-time dust data on the Web,

the EPA has concluded that the proposed changes to conditions are appropriate and should be approved.

However, the EPA notes that the proposed improvements to dust management will depend to a large extent on the proposed upgrade (Rapid Growth Phase 4 or "RGP4") to BHP Billiton's facilities associated with shifting crushing and screening inland to the proposed Newman Hub. BHP Billiton will not make a definite commitment to RGP4 until the second quarter of 2007. In the event that the RGP4 does not proceed (for example because of an unforeseen change to market conditions), it is expected that the environmental conditions relating to dust management will need to be further reviewed.

The EPA also notes that it may be necessary to further review the conditions pending the final outcomes of:

- (1) the Cumulative Dust Assessment for Port Hedland which is being coordinated by the Department of Industry and Resources; and,
- (2) the final report on the Port Hedland health studies which are being coordinated by the Department of Health.

The results of both the cumulative dust assessment and the health studies are expected to be available by early 2008.

3. Other Advice

Other issues raised in submissions

Several issues were raised in public submissions which BHP Billiton has, quite correctly, identified as matters which should more appropriately be addressed by Government. Some of those submissions relate to general health concerns associated with dust levels at Port Hedland. The EPA anticipates that the concerns raised will be addressed by the DOH through the detailed health studies which are now underway.

The EPA also notes that public submissions have called for a stronger DEC regulatory presence in Port Hedland. The EPA understands that DEC is working to address this issue.

Review of Dust Monitoring in Port Hedland

Following completion of the DOIR cumulative dust study, a review of dust monitoring in Port Hedland is to be carried out jointly by Government and industry. The objective of the review is to develop a best-practice comprehensive dust monitoring program for Port Hedland, covering all major dust sources. The EPA believes that the proposed Dust Monitoring Review is an important initiative and should be carried out as soon as possible.

Need for improved land use zoning

In addition to reducing dust emissions at source, better land zoning is required in order to more effectively manage the dust problem in Port Hedland in the long term. A land zoning system needs to be developed based on dust contours and, in the zone most affected by dust, land use should be restricted to industrial only.

Noise

While not forming part of the present section 46 assessment, the EPA is aware that noise levels at Port Hedland are also a matter of some public concern. The EPA notes that DEC has requested BHP Billiton to submit a detailed noise improvement plan for its operations at Port Hedland. Following consideration of that plan, there may be a need for a further EPA assessment process to address noise management.

4. Conditions

Section 46(1) of the *Environmental Protection Act 1986* requires the EPA to report to the Minister for the Environment on whether or not the proposed changes to conditions or procedures should be allowed.

4.1 Recommended change to conditions

The EPA recommends that condition 1 in the existing Ministerial Statement (Ministerial Statement 433 published on 14 November 1996) be modified to reflect the new management targets and actions now proposed. It is not necessary to amend any of the other ministerial conditions in Statement 433.

5. Conclusion

The EPA has concluded that the proposed changes to conditions are appropriate and will provide for significant improvements to dust management and water-use efficiency as well as improved transparency and responsiveness to community concerns.

However, the EPA notes that the proposed improvements to dust management will depend to a large extent on the proposed upgrade (Rapid Growth Phase 4 or “RGP4”) to facilities associated with shifting crushing and screening inland to the proposed Newman Hub. BHP Billiton will not make a definite commitment to RGP4 until the second quarter of 2007. In the event that the RGP4 does not proceed (for example because of an unforeseen change to market conditions), it is expected that the environmental conditions relating to dust management will need to be further reviewed.

The EPA also notes that it may be necessary to further review the conditions pending the final outcomes of:

- (1) the Cumulative Dust Assessment for Port Hedland which is being coordinated by the Department of Industry and Resources; and,
- (2) the final report on the Port Hedland health studies which are being coordinated by the Department of Health.

The results of both the cumulative dust assessment and the health studies are expected to be available by early 2008.

The EPA has also provided some other advice in relation to:

- other matters raised in submissions;

- the development of a comprehensive dust monitoring program for Port Hedland;
- the need for better land use zoning in Port Hedland; and,
- noise from BHP Billiton's facilities.

6. Recommendations

The EPA submits the following recommendations to the Minister for the Environment:

1. That the Minister notes that this report is pursuant to Section 46(1) of the *Environmental Protection Act 1986* ("EP Act") and thus is limited to consideration of proposed changes to the environmental conditions in Ministerial Statement 433, published on 14 November 1996.
2. The EPA recommends that the Minister considers the report on the key environmental factor as set out in Section 3.
3. That the Minister notes that the EPA has concluded that the proposed changes to the conditions are appropriate and will provide for significantly improved management of dust and improved water-use efficiency, as well as increased transparency and responsiveness to community concerns.
4. The Minister imposes the amended condition detailed in Appendix 4 of this report.
5. The Minister notes that the change to conditions proposed in this report relate only to dust management and, as such, will not constitute approval for BHP Billiton's planned major upgrades of facilities. Approvals for the facilities upgrades would be considered separately under Part V of the EP Act and, if necessary, through a separate EPA assessment under Part IV of the EP Act.

Appendix 1

List of Submitters

State/Local Government

- Town of Port Hedland
- Department of Health

Organisations

- Port Hedland Community Progress Association
- Conservation Council of Western Australia
- The Greens (WA) Pilbara Group
- Care for Hedland Environmental Association

Individuals

- Narelle Shaw
- Darryl Brown
- Kelly Howlett
- Arthur McColl
- John Glover
- Warren Jacka
- Pamela Gangell-Hardine
- Two confidential submissions

Appendix 2

References

BHP Billiton Iron Ore Pty Ltd, 2006, *Revision of the Dust Management Program for Finucane Island and Nelson Point Operations*, Section 46 Amendment to Ministerial Statement 433.

BHP Iron Ore Pty Ltd, 1996, *Port Hedland Dust Management Program*, Consultative Environmental Review, July 1996.

EPA, 1996, *Upgrade of Dust Management at Finucane Island and Nelson Point, Port Hedland*, Bulletin 831, October 1996.

Appendix 3

Statement of Environmental Conditions of Approval (14 November 1996)



Ass # 955

Bull # 831

State # 433

MINISTER FOR THE ENVIRONMENT WESTERN AUSTRALIA

**STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED
(PURSUANT TO THE PROVISIONS OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

**UPGRADE DUST MANAGEMENT
AT FINUCANE ISLAND AND NELSON POINT,
PORT HEDLAND (955)**

BHP IRON ORE PTY LTD

This proposal may be implemented subject to the following conditions:

1 Proponent Commitments

The proponent has made a number of environmental management commitments in order to protect the environment.

- 1-1 In implementing the proposal, the proponent shall fulfil the commitments made in the Consultative Environmental Review and in response to public submissions; provided that the commitments and environmental management measures are not inconsistent with the conditions or procedures contained in this statement.

The consolidated environmental management commitments were published in Environmental Protection Authority Bulletin 831 (Appendix 3) and a copy is attached.

2 Implementation

Changes to the proposal which are not substantial may be carried out with the approval of the Minister for the Environment.

- 2-1 Subject to these conditions, the manner of detailed implementation of the proposal shall conform in substance with that set out in any designs, specifications, plans or other technical material submitted by the proponent to the Environmental Protection Authority with the proposal.
- 2-2 Where, in the course of the detailed implementation referred to in condition 2-1, the proponent seeks to change the designs, specifications, plans or other technical material submitted to the Environmental Protection Authority in any way that the Minister for the Environment determines, on the advice of the Environmental Protection Authority, is not substantial, those changes may be effected.

Published on

9 4 NOV 1995

3 Proponent

These conditions legally apply to the nominated proponent.

- 3-1 No transfer of ownership, control or management of the project which would give rise to a need for the replacement of the proponent shall take place until the Minister for the Environment has advised the proponent that approval has been given for the nomination of a replacement proponent. Any request for the exercise of that power of the Minister shall be accompanied by a copy of this statement endorsed with an undertaking by the proposed replacement proponent to carry out the project in accordance with the conditions and procedures set out in the statement.

4 Time Limit on Approval

The environmental approval for the proposal is limited.

- 4-1 If the proponent has not substantially commenced the project within five years of the date of this statement, then the approval to implement the proposal as granted in this statement shall lapse and be void. The Minister for the Environment shall determine any question as to whether the project has been substantially commenced.

Any application to extend the period of five years referred to in this condition shall be made before the expiration of that period to the Minister for the Environment.

Where the proponent demonstrates to the requirements of the Minister for the Environment on advice of the Department of Environmental Protection that the environmental parameters of the proposal have not changed significantly, then the Minister may grant an extension not exceeding five years.

5 Compliance Auditing

To help determine environmental performance and compliance with the conditions, periodic reports on the implementation of the proposal are required.

- 5-1 The proponent shall submit periodic Performance and Compliance Reports, in accordance with an audit programme prepared by the Department of Environmental Protection in consultation with the proponents.

6 Environmental Management

- 6-1 The proponent shall exercise all care and due diligence in managing the proposal to ensure the protection of the environment.

- 6-2 The proponent shall prepare and implement an environmental management plan and environmental management procedures (for example those provided for in Australian Standards 9000 and 14000 (draft) series) to manage the relevant environmental factors to achieve the objectives specified by the Environmental Protection Authority in the assessment report (Bulletin 831), with appropriate monitoring, auditing and reporting to ensure compliance with these conditions and procedures and the ongoing protection of the environment.

- 6-3 If through the implementation of the procedures referred to in 6-2 the proponent identifies a relevant environmental factor not listed as such in Environmental Protection Authority Bulletin 831, the proponent shall immediately report to the Minister on that factor, a proposed objective and any proposals for management of the factor to achieve the objective.

7 Performance Review

- 7-1 Following the approval of the proposal, the proponent shall carry out an annual audit of the dust management performance and management system. The proponent shall provide the audit report to the Department of Environmental Protection each year for the first five years of the approval.
- 7-2 Each five years following the approval of the proposal, the proponent shall prepare a major review of the following:
1. environmental protection, including but not limited to consideration of the environmental objectives;
 2. the audit of performance against the environmental objectives; and
 3. the annual audits required by condition 7-1,

to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.

These environmental objectives shall include but not be limited to those identified by the Environmental Protection Authority in the assessment report (Environmental Protection Authority Bulletin 831).

The environmental objectives may be changed by the Environmental Protection Authority following the review.

Procedure

- 1 Unless otherwise specified, the Department of Environmental Protection is responsible for assessing compliance with the conditions contained in this statement and for issuing formal clearance of conditions.
- 2 Where compliance with any condition is in dispute, the matter will be determined by the Minister for the Environment.

Hon Peter Foss QC MLC
MINISTER FOR THE ENVIRONMENT

14 NOV 1996

Proponent's Environmental Management Commitments

**UPGRADE DUST MANAGEMENT
AT FINUCANE ISLAND AND NELSON POINT,
PORT HEDLAND (955)**

BHP IRON ORE PTY LTD

PROPONENT'S ENVIRONMENTAL MANAGEMENT COMMITMENTS

The proponent makes the following commitments in relation to the development:

General

Commitment 1

The proponent will develop and implement the Dust Management Programme as a component of BHP Iron Ore Pty Ltd (BHPIO) Environmental Management Programme to improve dust management and reduce operational dust impacts.

The programme will incorporate:

- quality assurance and environmental management principles according to AS/ISO 9000 and draft AS/ISO 14000 series;
- performance measurement/ continual improvement;
- bench marking for all Hedland Operations;
- operational feedback; and
- community consultation.

The programme will be developed and implemented to the satisfaction of the Department of Environmental Protection (DEP).

Community Amenity Impacts

Commitment 2

The proponent will develop and implement for community amenity impacts, an issue definition and dust management performance assessment process, to:

- (i) address community consultation by maintaining a community complaints register;
- (ii) develop Total Suspended Particulate (TSP or PM₅₀) air quality criteria for the Port Hedland residential area;
- (iii) develop annual performance targets based on the number of complaints/exceedances; and
- (iv) address community consultation on community amenity impacts.

The process will include the following:

- recording and responding to community complaints;
- informing Port Hedland Dust Management Committee (PHDMC) of status on a regular basis;
- maintain residential TSP monitoring programme;
- setting agreed interim TSP criteria;
- assisting the development of an air quality policy for Port Hedland in conjunction with the DEP and PHDMC;
- establishing a protocol for exceedance / complaint analysis and reporting to DEP; and
- developing and maintaining community consultation on community amenity impacts.

The above components will be developed and implemented in consultation with PHDMC and to the satisfaction of the DEP. The DEP Kwinana PM50 24h limit of $260\mu\text{g}/\text{m}^3$ is adopted as the interim exceedance target for amenity.

Commitment 3

To complete the dust management upgrade programme for Nelson Point and Finucane Island, the proponent will undertake the upgrading of:

- materials handling;
- dust suppression equipment;
- traffic and open areas; and
- dust management system.

The upgrades will be to the satisfaction of the DEP and will be completed by May 1997.

Commitment 4

The proponent will carry out ongoing review of new developments in dust management technology to continually improve dust management through:

- undertaking continual review of dust management technology; and
- implementing appropriate developed technology.

Potential Environmental Health Impacts

Commitment 5

The proponent will develop and implement a process for ongoing definition of the potential for environmental health impacts. This will be based on:

- establishing a PM10 monitoring programme;
- setting agreed interim PM10 criteria; and
- establishing a protocol for exceedance analysis and reporting to the DEP;
- assisting the development of an air quality policy for Port Hedland in conjunction with the DEP and PHDMC;
- continual review of developments in monitoring/criteria in conjunction with DEP and implement agreed programmes; and
- informing PHDMC of status on a regular basis.

The above components will be developed and implemented in consultation with the Health Department and the PHDMC, and to the satisfaction of the DEP. The US EPA PM10 maximum 24h average of $150\mu\text{g}/\text{m}^3$ is adopted as the interim exceedance target for health.

Commitment 6

The proponent will develop and implement a process to inform community on status of environmental health impacts, through dissemination of relevant information and data to the community on a regular basis, in consultation with the Health Department, the DEP and PHDMC.

Potential Ecological Impacts

Commitment 7

The proponent will develop and implement a process for ongoing definition of the potential for ecological impacts. This will be based on:

- establishing a dust deposition/ vegetation monitoring programme;
- establishing effluent discharge/harbour monitoring studies; and
- informing PHDMC of status on a regular basis.

The above components will be developed and implemented to the satisfaction of the DEP.

Any agreed potential impacts identified from these monitoring studies will be addressed through an appropriate management programme to be developed in consultation with the DEP.

Commitment 8

The proponent will develop and implement a process to inform community on status of ecological impacts, through dissemination of relevant information and data from the above studies (Commitment 7) to the community, in consultation with the DEP and PHDMC.

Commitment 9

The proponent will develop and implement programmes to minimise iron ore fines waste generation, to the satisfaction of the DEP.

Appendix 4

Proposed revisions to Ministerial Statement 433

RECOMMENDED ENVIRONMENTAL CONDITIONS

Statement No.

**STATEMENT TO AMEND CONDITIONS APPLYING TO A PROPOSAL
(PURSUANT TO THE PROVISIONS OF SECTION 46 OF THE
ENVIRONMENTAL PROTECTION ACT 1986)**

UPGRADE DUST MANAGEMENT
AT FINUCANE ISLAND AND NELSON POINT
PORT HEDLAND

Proponent: BHP Billiton Iron Ore Pty Ltd

Proponent Address: 200 St George's Terrace
PERTH WA 6000

Assessment Number: 1615

Previous Assessment Number: 955

Report of the Environmental Protection Authority: Bulletin 1247

Previous Report of the Environmental Protection Authority: Bulletin 831

Previous Statement Number: 433 (published 14 November 1996)

The implementation of the proposal to which the above reports of the Environmental Protection Authority relate is subject to conditions and procedures contained in Ministerial Statement 433, as amended by the following::

Condition 1 (Proponent Commitments) of Statements 433 is deleted and replaced by the following condition:

1 Environmental Management Actions

- 1.1 The proponent shall fulfil the environmental management actions specified (numbered) in Table 1 of this Statement.

Published on

Table 1: Environmental Management Actions

REVISION OF THE DUST MANAGEMENT PROGRAM FOR FINUCANE ISLAND AND NELSON POINT OPERATIONS: SECTION 46 AMENDMENTS TO MINISTERIAL STATEMENT 433 – PORT HEDLAND, TOWN OF PORT HEDLAND.

Note: The term “action” as used in this schedule includes the entire row of the table and its six separate parts as follows:

- an action number;
- an action topic;
- the objective of the action;
- the ‘action’ to be undertaken by the proponent;
- the timing requirements of the action; and
- the body/agency to provide technical advice to the Department of Environment and Conservation.

Number	Topic	Objective	Action	Timing	Advice
1	Dust Management Program	To reduce dust emissions from the proponent’s Finucane Island and Nelson Point operations.	<ul style="list-style-type: none"> • The proponent will implement the revised Dust Management Program 2006 (Appendix A, BHP Billiton Iron Ore, <i>Revision of the Dust Management Program for Finucane Island and Nelson Point Operations; Section 46 Amendments to Ministerial Statement 433</i>, August 2006) as a component of its Environmental Management Program • The program will incorporate: <ul style="list-style-type: none"> ○ Quality assurance and environmental management principles according to AS/ISO 9000 and AS/ISO 14000 series; ○ Performance measurement and continual improvement; ○ Benchmarking for all the proponent’s Port Hedland Operations ○ Operational feedback; and ○ Community consultation. • The proponent will implement the Dust Management Plan as part of the Dust Management Program. 	The Dust Management Program will be implemented no later than the date of the section 45(7) authority being issued by the Minister and will be reviewed at least every five years. Program to continue throughout the life of the proposal.	DEC DOH
			<ul style="list-style-type: none"> • The proponent will submit annual Dust Monitoring and Management Reports to the government (via the Department of Environment and Conservation) detailing environmental performance, including public complaints, proponent response to public complaints and progress achieved in implementing the Dust Management Plan. 	Initial Dust Monitoring and Management Report to be submitted to DEC no later than 31 December 2007. Dust Monitoring and Management Reports to be submitted annually (or at such interval as approved by the Minister) throughout life of proposal.	

Number	Topic	Objective	Action	Timing	Advice
2	Performance Targets	To measure the success of the proponent's Dust Management Program.	<p>The proponent will apply the following performance targets (note: natural background events which materially exceed historical data ranges, or dust levels which are reasonably attributable to third party operations, will be taken into account when reporting results for that period):</p> <ul style="list-style-type: none"> Air Quality Related - Long Term Average: Improvement in the annual average PM10 monitored at the Hospital site to a long-term target of 30 µg/m3. Air Quality Related – Short Term Average: Improvement in the 24 hour average PM10 monitored at the hospital monitoring site to a long-term target of 70 µg/m3 with less than 10 exceedences per year. Amenity Related: progressive reduction in the annual average TSP monitored at the Hospital monitoring site to a long-term target of 65 µg/m3. 	Targets to be implemented incrementally starting no later than the date of the section 45(7) authority being issued by the Minister with targets being fully implemented no later than 31 December 2012	DEC DOH
			<ul style="list-style-type: none"> Amenity Related – Community Perception: Improvement in the perception of the proponent's dust management program (as it relates to amenity associated with the proponent's iron ore dust) as measured by the Social Monitoring (annual measurement) and Evaluation Survey (annual measurement), within the western end of Port Hedland. Community perception report to be submitted to DEC annually (or at such longer interval as approved by the Minister).. Amenity Related – Community Satisfaction: Improvement in community satisfaction towards the proponent's management of dust impacts as measured by the Social Monitoring and Evaluation Survey. Community satisfaction report to be submitted to DEC annually (or at such longer interval as approved by the Minister). 	Initial reports on community perception and satisfaction to be submitted to DEC no later than 31 December 2007. Reports on community perception and satisfaction to be submitted annually (or at such interval as approved by the Minister) throughout life of proposal.	DEC DOH
3	Water-use Efficiency Plan	To improve water-use efficiency at the proponent's Finucane Island and Nelson Point Port Hedland operations.	<ul style="list-style-type: none"> The proponent will implement the Water-use Efficiency Plan 2006 (Appendix B, BHP Billiton Iron Ore, <i>Revision of the Dust Management Program for Finucane Island and Nelson Point Operations; Section 46 Amendments to Ministerial Statement 433</i>, August 2006) as part of the Dust Management Program. 	The Water Use Efficiency Plan will be implemented no later than the date of the section 45(7) authority being issued by the Minister and will be reviewed at least every five years.	DEC DoW

Number	Topic	Objective	Action	Timing	Advice
			<ul style="list-style-type: none"> The proponent will submit environmental reports to DEC, detailing progress achieved in implementing the Water-use Efficiency Plan, annually (or at such greater interval as approved by the Minister). 	<p>Initial report to be submitted to DEC no later than 31 December 2007.</p> <p>Reports to be submitted annually (or at such interval as approved by the Minister).</p> <p>Reports to be submitted through the life of proposal.</p>	
			<ul style="list-style-type: none"> The proponent will progressively improve water use efficiency to achieve a target of 10% reduction in fresh water consumption per tonne of iron ore (shipped) by the end of 2012. 	<p>The water use efficiency target (10% reduction in fresh water consumption per tonne of iron ore shipped) will be achieved no later than 31 December 2012.</p>	
4	Community and Stakeholder Engagement	Effectively consult community and respond to community concerns	<ul style="list-style-type: none"> The proponent will implement the revised Community Engagement Program, as detailed in Chapter 7, Community Engagement Program, of BHP Billiton Iron Ore's, <i>Revision of the Dust Management Program for Finucane Island and Nelson Point Operations; Section 46 Amendments to Ministerial Statement 433</i>, August 2006. As part of the Community Engagement Program, the proponent will continue to actively participate- in Port Hedland Air Quality Reference Group meetings and forums. 	<p>Revised Community Engagement Program to commence no later than the date of the section 45(7) authority being issued by the Minister and to continue throughout the life of proposal.</p>	DEC DOH
5	Ambient Dust Monitoring Review.	To further improve the effectiveness, transparency and independence of the proponent's ambient air quality monitoring program.	<ul style="list-style-type: none"> The proponent will assist the Department of Environment and Conservation in the ambient dust monitoring review, through the provision of data and expertise. 	<p>Upon request of the DEC.</p>	DEC

Number	Topic	Objective	Action	Timing	Advice
6	Public access to data	To improve public access to dust monitoring data.	<ul style="list-style-type: none"> The proponent will collect real time data <i>via</i> continuous monitoring (data collected in 10 minutes intervals, recorded hourly as a rolling 24 hour mean) for PM10 and TSP at the Hospital monitoring site. This data will be available to the community through an appropriate means (through a web site and upon request) 	Real time data will be made available (on the Web and upon request) from 3 September 2007 and will continue to be provided through the life of the proposal.	DEC DOH
7	Regional dust standards	To ensure internal air quality targets reflect the evolution of regional air quality standards	In the event that government develops a regional air quality standard for Port Hedland, the proponent will review and revise its internal air quality related performance targets to ensure they reflect current standards.	Proponent to review internal targets on request of the DEC following publication of revised regional standards.	DEC

Key

DEC = Department of Environment and Conservation
DoH = Department of Health
DoW = Department of Water
EPA = Environmental Protection Authority.

Appendix 5

Summary of Public Submissions and Proponent's Response

BHP Billiton Iron Ore

Revision of the Dust Management Program for Finucane Island and Nelson Point Operations:

Section 46 Amendment to Ministerial Statement 433.

Responses to Public Comments

Table 1. BHP Billion Iron Ore’s Response to Issues Raised by Public Submissions to the Section 46 Revision of the Dust Management Program for Finucane Island and Nelson Point Operations: Section 46 Amendment to Ministerial Statement 433.

No.	ISSUES RAISED BY SUBMITTERS.	BHP BILLITON IRON ORE RESPONSE.
1	MONITORING	
1.1	Monitoring. Dust	
1.1.1	<p>Improved monitoring, location and composition of monitoring sites, independence of monitoring, involvement of the community and government in monitoring, and transparency of results, including making real time, short duration, dust data more readily accessible.</p> <p>Submitters</p> <ul style="list-style-type: none"> • Port Hedland Community Progress Association • Conservation Council of Western Australia • Narelle Shaw • Darryl Brown • Kelly Howlett • The Greens (WA) Pilbara Local Group • Arthur McColl • Town of Port Hedland • John Glover • Confidential Submission 2 • Care for Hedland Environmental Association • Department of Health 	<p>BHP Billiton Iron Ore supports the recommendations of the Department of Health.</p> <p>An ambient dust monitoring review is to be initiated by the Department of Environment and Conservation and supported by BHP Billiton Iron Ore. This review is to include a review of monitoring locations, monitoring methodology and reporting format and process. The review is to be carried out for the whole of Port Hedland and is to include participation from across industry, the community, and Department of Health. This review is to consider, amongst other things, health assessment and amenity requirements.</p> <p>BHP Billiton Iron Ore supports the use of continuous monitoring (data collected in 10 minutes intervals, recorded hourly as a rolling 24 hour mean) and the display of real time information using an internet based approach. In consultation with the Department of Health and the Department of Environment and Conservation the company will establish an appropriate web site as part of the planned ambient dust monitoring review.</p> <p>PM₁₀ continuous data (collected in 10 minutes intervals, recorded hourly as a rolling 24 hour mean) will also be provided to the Department of Health and the Department of Environment and Conservation quarterly or as otherwise requested.</p>
1.1.2	<p>Dust concentration targets for PM₁₀ should use an hourly measure not a 24 hour average so that they more closely link to likely exceedence events. Real time monitoring should be used to ensure that dust levels are kept below a determined minimum acceptable level.</p> <p>Submitters</p>	<p>Both real time (BAM) and 24 hour based (HiVol) monitoring is currently in use for monitoring of dust levels at the Hospital site, Harbour site, Meteorological Bureau (Background), Boodarie and South Hedland sites. Results currently reported in the local paper are based on BAM monitoring results obtained from the Hospital and Harbour sites.</p>

BHP Billiton Iron Ore

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No.	ISSUES RAISED BY SUBMITTERS.	BHP BILLITON IRON ORE RESPONSE.
	<ul style="list-style-type: none"> • Conservation Council • Kelly Howlett 	<p>The Dust Management Plan for Port Hedland Operations identifies the need to review the operational dust monitoring network and program. As shown in point 1.1.1 above BHP Billiton Iron Ore supports a complete review of the monitoring program and the change to web based reporting of data collected in 10 minutes intervals from continuous monitors and recorded hourly as a rolling 24 hour mean, compared with the current 24 hour average. This is supported by the Department of Environment and Conservation and the Department of Health.</p>
1.1.3	<p>The use of a single monitoring site at the Hospital to monitor dust across the West End of Port Hedland is not adequate.</p> <p>Submitters</p> <ul style="list-style-type: none"> • Port Hedland Community Progress Association. • Darryl Brown • The Greens (WA) Pilbara Local Group • Confidential Submission 2 	<p>BHP Billiton Iron Ore acknowledges this comment.</p> <p>The selection of the Hospital site as the reference point for the measurement of the targets does not mean that dust levels in other parts of town will no longer be considered.</p> <p>The recommendation made in the Section 46 document is to use the Hospital Monitor Site as a reference location against which to track performance. BHP Billiton Iron Ore will continue to monitor from other existing sites, including the Harbour Site, Boodarie, South Hedland and the Meteorological Bureau sites.</p> <p>In addition, BHP Billiton has agreed to undertake a review of all monitoring locations, methodology and reporting as outlined by the Department of Environment and Conservation with input from other agencies, industry and community.</p> <p>See also point 1.1.1 above.</p>
1.1.4	<p>BHPB no longer collects dust measurements at Cooke Point or South Hedland.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Care for Hedland Environmental Association 	<p>BHP Billiton Iron Ore continues to collect dust measurements from South Hedland.</p> <p>BHP Billiton Iron Ore ceased collecting data from Cooke Point during in October 1999 due to the unsuitability of the site (not considered safe).</p> <p>Discussion with the community through the Community Consultative Group has identified the desire to have monitoring take place along the length of the Port</p>

BHP Billiton Iron Ore***Revision of the Dust Management Program for Finucane Island and Nelson Point Operations:******Section 46 Amendment to Ministerial Statement 433.*****Responses to Public Comments**

No.	ISSUES RAISED BY SUBMITTERS.	BHP BILLITON IRON ORE RESPONSE.
		<p>Hedland ridge. BHP Billiton Iron Ore is currently setting up two continuous monitors (BAM), one at the Town of Port Hedland Offices and one at Keesing Street Oval.</p> <p>Monitoring locations will be reconsidered as part of the proposed monitoring review to be led by the Department of Environment and Conservation. It is likely that additional sites will be established as a result of this process.</p> <p>See also point 1.1.1 above.</p>
1.1.5	<p>Monitoring should include PM_{2.5}</p> <p>Submitter</p> <ul style="list-style-type: none">Care for Hedland Environmental Association	<p>PM_{2.5} monitoring is carried out at the Harbour, Weather Bureau and Hospital monitoring sites and has been carried out since 2001, 2002 and 2003 respectively.</p> <p>See also point 1.1.1 above.</p>
1.1.6	<p>BHPB 'background' monitoring is unreliable. BHPB's 'background' monitor is next to the Great Northern Highway, the Port Hedland International Airport, road train facilities, the speedway and a BMX track, as well as itself being affected by BHPB's dust.</p> <p>Submitter</p> <ul style="list-style-type: none">Care for Hedland Environmental Association	<p>BHP Billiton Iron Ore considered a number of sites before selecting the airport site for monitoring of background data. It was felt that the airport site best met the needs for a site. The activities described were considered when the site was selected and it is believed that the activities mentioned would not compromise the use of the site to identify background data.</p> <p>The review of the monitoring network described in point 1.1.1 will include the revision of the locations of background monitors.</p>
1.1.7	<p>The DoH seeks the adoption of PM10 health related performance target measured against continuous monitoring data, recorded hourly as a rolling 24-hr mean, with further support provided by HiVol monitoring results. Additionally the presentation of monitoring data should be shown against the interim target reference points with a reference to the NEPM to facilitate the evolution of a preferred regional ambient air quality standard for particulates. BHPBIO is to demonstrate continued improvement.</p>	<p>BHP Billiton Iron Ore accepts this recommendation.</p> <p>In the interim, prior to the finalisation of the proposed Ambient Dust Monitoring Review, but subject to changes recommended in the review, as a measure against targets at the reference site, BHP Billiton Iron Ore will change to the use of continuous monitors, configured to the standard determined by the Department of Environment and Conservation, to provide 10 minute dust data. The measure of performance against the short term air quality targets will be on clock hours. HiVol</p>

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No.	ISSUES RAISED BY SUBMITTERS.	BHP BILLITON IRON ORE RESPONSE.
	<p>Submitter</p> <ul style="list-style-type: none"> • Department of Health 	<p>monitoring will be maintained at least at the reference site, the Hospital, for comparison and compositional analysis. A rolling 24 hour average will be calculated and displayed on a web site.</p> <p>See also point 1.1.1 above.</p>
1.1.8	<p>The DoH supports the use of the Hospital monitor as the most appropriate existing monitoring location at which performance targets should be measured. However the DoH has also identified that a suitable monitoring location be considered to most accurately reflect the boundary of residential occupancy is required for more effective dust evaluation to be undertaken in the future.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Department of Health 	<p>BHP Billiton Iron Ore commits to making changes to the sites, types of monitoring and methodology as recommended by the proposed Ambient Dust Monitoring Review.</p> <p>See also points 1.1.1 and 1.1.3</p>
1.1.9	<p>The monitoring and assessment issues outlined above are also reflected in community concerns regarding the significance of real-time dust monitoring (S46A, page 7:19). Importantly, the DoH notes:</p> <ul style="list-style-type: none"> • The community desire for increased monitoring transparency. • Requests for additional monitoring in the area between the current town and hospital dust monitoring sites. <p>The monitoring and assessment recommendations that have been provided by the DoH throughout the S46A review process directly address these concerns. Ensuring these recommendations are incorporated into the S46A is therefore considered to be of benefit to all stakeholders.</p> <p>Submitter</p>	<p>BHP Billiton Iron Ore accepts these recommendations.</p> <p>See also points 1.1.1 and 1.1.3 above.</p>

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No.	ISSUES RAISED BY SUBMITTERS.	BHP BILLITON IRON ORE RESPONSE.
	<ul style="list-style-type: none"> • Department of Health 	
1.2	Monitoring Water.	
1.2.1	<p>BHP Billiton Iron Ore should make real time water consumption data available.</p> <p>Submitters</p> <ul style="list-style-type: none"> • Narelle Shaw • The Greens (WA) Pilbara Local Group 	<p>The company supports the concept of supplying water consumption data as defined around water use efficiency targets.</p>
1.3	Monitoring Environmental.	
1.3.1	<p>Continued monitoring of the long term impacts of dust and other development activity on the ecological integrity of the mangrove ecosystem, turtle nesting and other environmental values around Port Hedland should be undertaken. This may be by BHPB, or by an agreement between the companies doing business at Port Hedland.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Conservation Council 	<p>BHP Billiton Iron Ore is committed to carrying out studies into the ecology of Port Hedland and the long term impacts of its' operations on the environment. The company continues to carry out ecological studies in relation to:-</p> <ul style="list-style-type: none"> • The ongoing hyperspectral characterisation of dust impacts on mangroves: undertaken annually with results generally published in the Annual Environmental Report, • Harbour sediment monitoring, carried out biannually with information published in Annual Environmental Report, • Harbour sub-tidal and inter-tidal fauna monitoring, carried out every three years with data published in the Annual Environmental Report and provided to the Western Australian Museum, and • Metal and TBT monitoring carried out every three years with information published in the Annual Environmental Report and data provided to the Western Australian Museum, the Department of Environment and Conservation and the Port Hedland Port Authority.

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No.	ISSUES RAISED BY SUBMITTERS.	BHP BILLITON IRON ORE RESPONSE.
2	TARGETS	
2.1	Targets Dust	
2.1.1	<p>An appropriate measure and standard should be incorporated for dust deposition.</p> <p>Submitter</p> <ul style="list-style-type: none"> Port Hedland Community Progress Association 	<p>The nuisance effect of dust (including loss of amenity) is difficult to measure in any quantitative or objective way. The effects of nuisance dust are also very dependent on the sensitivity of the receiving environment.</p> <p>There is no commonly applied national or state standard definition of nuisance dust or ambient standard against which to assess it. As a measure of nuisance (amenity related impact of dust) BHP Billiton Iron Ore has proposed the use of a Total Suspended Particulates (TSP) target with an improvement in the annual average TSP (compiled from 24 hour average HiVol data) monitored at the Hospital site.</p>
2.1.2	<p>BHPBIO has dismissed the use of the NEPM guidelines based on the argument that there must be a combination of PM₁₀ matter associated with exhaust emissions as happens within the urban environment. There is no evidence to support this claim. The NEPM guidelines grew out of the research of hundreds of scientists around the world who studied the relationship between hospital admissions and air quality in large urban centres with strong correlation between findings in Europe and North America. The NEPM guidelines separate the safe recommended levels of exhaust emissions from the PM₁₀ recommendations. The stated PM₁₀ safe exposure level is unconditional and for any compound, however inert.</p> <p>There is no known science anywhere to support the argument that exhaust emissions must be present in exposure to PM₁₀ matter for the exposure to be considered dangerous. This claim appears to be false and misleading and is a serious flaw in plan.</p> <p>Submitter</p> <ul style="list-style-type: none"> Warren Jacka 	<p>NEPM was developed through careful study of particulate levels in Urban areas through a risk assessment process. It is widely recognised that the NEPM is not applicable to rural areas where the composition of the dust is different from the dust found in cities. For example, the USEPA in setting their guidelines specifically excludes rural areas. In addition, the dry, arid and windy climate experienced in the Pilbara and Port Hedland, combined with potential for bush fires means that the likelihood of exceeding the NEPM, even in the absence of industry, is high.</p> <p>Since NEPM was developed in 1998 there has been a significant amount of research conducted that has strengthened the case for control of fine particulate pollution especially from combustion sources. To assess this new research and to gain further understanding of the potential health impacts of coarse particulate and its relevance to Port Hedland, the Department of Health has commissioned a literature review and toxicological studies are underway as part of the risk assessment process. Although still to undergo peer review, the authors of the <i>‘Literature Review and Report on Potential Health Impacts of Exposure to Crustal Material in Port Hedland’</i> note that there is a significant body of toxicological and epidemiological evidence supporting their conclusion that there is a difference in the potential for Port Hedland dust to cause health effects when compared to urban dusts. The draft report also states that</p>

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No.	ISSUES RAISED BY SUBMITTERS.	BHP BILLITON IRON ORE RESPONSE.
	<p>The NEPM standard should be used by BHP Billiton Iron Ore.</p> <p>Submitters</p> <ul style="list-style-type: none"> • The Greens (WA) Pilbara Local Group • Town of Port Hedland • Care for Hedland Environmental Association. <p>The NEPM standard should be used by BHP Billiton Iron Ore with 10 exceedences.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Care for Hedland Environmental Association. 	<p><i>‘there is no justification for the AAQ-NEPM, which has been developed for urban environments, to be uncritically applied to Port Hedland.’</i></p> <p>In addition, BHP Billiton Iron Ore understands that the national application of AAQ-NEPM remains under review. It is currently not certain that the values applied to the AAQ-NEPM will be applied in their current form. Similar reviews are also occurring internationally.</p>
2.1.3	<p>BHP have been advised that they have until 2008 to comply with the NEPM Standards for air quality (p5-6 para 3).</p> <p>Submitter</p> <ul style="list-style-type: none"> • Warren Jacka 	<p>The NEPM was established nationally in 1998 and in doing so set the goal for each State and Territory of Australia to achieve the ambient standards within 10 years. The Western Australian State Government has nominated several sites that will be used to determine whether the NEPM is achieved in Western Australia. Port Hedland is not nominated as one these sites.</p>
2.1.4	<p>BHP’s weekly reporting of PM₁₀ from the Town and Hospital sites always shows 3 or more exceedences of the 50µg/m³ internal target for that period. The NEPM Standard for 50µg/m³ recommends no more than five exceedences per year or one every ten weeks. Three exceedences per week translate to 30 times the safe exposure level for public health and safety, a figure that BHP seem please to achieve.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Warren Jacka 	<p>It is the intention of BHP Billiton Iron Ore to significantly reduce the dust produced at its Port Hedland operations. The actions committed to within the Section 46 amendment process intend to achieve a significant step change reduction in dust.</p> <p>The Section 46 process enables BHP Billiton Iron Ore to measure its performance against the interim targets and the company is committed to undertaking a review of these interim targets following the Department of Health’s health studies, once a revised ambient air particulate standard is determined by the State.</p>
2.1.5	<p>Do not support the proposed long term air quality target being an annual</p>	<p>BHP Billiton Iron Ore recognises the importance of short-term targets. A short term</p>

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	<p>average, would still prefer the target to be a specified target on any given day.</p> <p>Submitter</p> <ul style="list-style-type: none"> • The Greens (WA) Pilbara Local Group 	<p>air quality target has been proposed, PM10 recorded daily as a 24 hour mean. The proposed long term air quality related target is recorded monthly as a rolling mean.</p>
2.1.6	<p>A serious attempt to reflect changing regulations would not develop a target system that is incompatible with the proposed Australian standard. Whole the Review talks of a ‘Port Hedland Standard’ that is a contradiction in terms.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Care for Hedland Environmental Association 	<p>A State-wide standard for ambient ground level concentrations has not yet been established. During the Consultative Environmental Review process, the EPA established ambient air quality criteria for BHP Iron Ore based on the then USEPA criteria. To develop new interim targets, BHP Billiton Iron Ore has worked extensively with modelling, engineering evaluation and operational feedback, the community through the Port Hedland Air Quality Reference Group and with Government.</p> <p>See also Commitment 4.</p>
2.1.7	<p>Care for Hedland opposes the changes because the review is premature pending release of cellular studies by Dept of Health, and resolution of the implications of the Hospitalization and Literature studies.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Care for Hedland Environmental Association 	<p>BHP Billiton Iron Ore recognises the need to reduce dust associated with its operations. The infrastructure and operational changes upon which the Section 46 amendment is predicated will seek to make significant reductions from the current dust targets.</p> <p>See also Commitment 4.</p>
2.2.	Target Water Use	
2.2.1	<p>BHPBIO should commit to meeting the dust management targets without recourse to significantly greater volumes of water for dust suppression. BHP Billiton should make every effort to address visible water wastage that occurs on site.</p> <p>Submitters</p> <ul style="list-style-type: none"> • Conservation Council of Western Australia. 	<p>BHP Billiton Iron Ore recognises the environmental value of water in the Pilbara.</p> <p>Specific activities identified in the Water-use Efficiency Plan address inappropriate water use or wastage at the Nelson Point and Finucane Island operations. The company has committed to significantly improve its water use efficiency in the period 2006 to 2012.</p>

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	<ul style="list-style-type: none"> Confidential Submission 2. 	
2.2.2	<p>The high amount of water used at both the Nelson Point and Finucane Island sites is also a concern. Especially with the well reported droughts throughout the rest of our country. Even though we do not have that issue here currently, it does not mean that we have an inexhaustible supply. I believe there should be more emphasis on water use efficiency on site. Real yearly targets set and investigations into the possibility of using recycled effluent water and sea water should also be mandatory.</p> <p>Submitter</p> <ul style="list-style-type: none"> Kelly Howlett <p>Like to see more emphasis on water efficiency on site. Specific and measurable targets for each year. Currently there seems to be little water usage data available and water usage has gone up on Nelson Point site considerably in last 1-2 yrs alone. Needed enforced regulation and tightening of water usage and would like to see greater efforts on usage of alternative water options such as recycled effluent and saline water and/or perhaps looking at desalinated water use option (thereby better linking cost of water with water usage). As currently with pricing of water there is no economic incentive to cut water usage on site.</p> <p>Submitter</p> <ul style="list-style-type: none"> The Greens (WA) Pilbara Local Group <p>Note that this submission is related primarily to Dust Pollution. However, Care for Hedland Environmental Association strongly supports significantly better water management in the Port Hedland yards and believes that existing 'management' is perfunctory.</p> <p>Submitter</p>	<p>BHP Billiton Iron Ore recognises the importance of water to the environment and the community and has included water use efficiency in the Section 46 review on that basis (Water Use Efficiency Plan). Establishing a target for water-use efficiency via Ministerial Conditions is a significant step in ensuring there is increased emphasis on water-use efficiency in our port operations and across the business. The five-year target will be cascaded to annual targets and tracked and reported on accordingly.</p> <p>In addition, BHP Billiton Corporate Targets are revised every 5 years, due mid 2007. This will require closer business scrutiny of water use, re use and recycling. Alternative options for water supply are considered as part of our growth planning processes.</p> <p>In addition to these points above the following information is provided. The closure of BHP Billiton's Boodarie Iron Plant has significantly reduced the Company's total water consumption figures in Port Hedland. The projected water use for the proposed expansion (RGP4) at Nelson Point and Finucane Island remain well below the total water use figures prior to the Boodarie Plant closure.</p>

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	<ul style="list-style-type: none"> Care for Hedland Environmental Association 	
2.3	Target Amenity	
2.3.1	<p>We believe that improvement in community satisfaction would be difficult to measure and would like to see quantification of community satisfaction, perhaps through annual surveying (independently & anonymously) of residents/businesses in the dust footprint area.</p> <p>Submitter</p> <ul style="list-style-type: none"> The Greens (WA) Pilbara Local Group 	<p>As detailed in the Section 46 document, BHP Billiton Iron Ore is committed to annual surveying (independent and anonymous) of residents and business in the dust footprint as a quantification and qualification method of community satisfaction.</p>
3	OTHER ISSUES RAISED	
3.1	Dust Management	
3.1.1	<p>Specific dust impact mitigation strategies should be included in the Dust Management Plan and the Objectives of the Plan should include the statement “to mitigate the amenity impact of iron ore dust in the community”.</p> <p>Submitter</p> <ul style="list-style-type: none"> Port Hedland Community Progress Association. 	<p>The Dust Management Plan includes a number of objectives that address the mitigation of iron ore dust impact on the amenity of the community. These include:-</p> <ul style="list-style-type: none"> Significantly reduce dust emissions, Adopt revised targets for PM₁₀ and TSP that appropriately accommodate the results of the Department of Health’s Health Studies and amenity issues, Improve response to complaints, Maintain community consultation and engagement program to identify dust related issues and review potential community based impact mitigation strategies.
3.1.2	<p>BHP Billiton Iron Ore should reduce its dust emissions from the Nelson Point and Finucane Island operations substantially or to zero.</p> <p>Submitters</p> <ul style="list-style-type: none"> Narelle Shaw 	<p>BHP Billiton Iron Ore recognises the need to reduce dust levels associated with its Nelson Point and Finucane Island operations and has initiated a number of programs aimed at addressing this. BHP Billiton Iron Ore, through the Section 46 amendment, seeks a large reduction in dust targets and identifies a number of initiatives that will significantly reduce dust associated with the Port Hedland operations.</p>

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	<ul style="list-style-type: none"> • Pam Gangell-Hardinge • Darryl Brown • Kelly Howlett • Arthur McColl • John Glover • Confidential Submission 1. • Confidential Submission 2 • Care for Hedland Environmental Association 	<p>It would be unrealistic to assume zero dust given the nature, scale and location of the operations and the Pilbara climate.</p>
3.1.3	<p>BHP Billiton Iron Ore should implement dust reduction immediately and not wait until RPG4 is approved and implemented.</p> <p>Submitters</p> <ul style="list-style-type: none"> • Confidential Submission 2. • Care for Hedland Environmental Association. 	<p>Elements of the Dust Management Plan and the Water-Use Efficiency plan have already commenced. Design improvements include removal of the old Goldsworthy operations and installation of a new fully enclosed car dumper on Finucane Island.</p> <p>Procedural changes are also being employed to help reduce dust, including increased focus at mines on moisture conditioning of ore for delivery to port.</p> <p>It is acknowledged that the adoption of the targets proposed in the Section 46 Revision of the Dust Management Program for Finucane Island and Nelson Point requires significant capital investment to allow for the upgrade of infrastructure needed to reduce dust. While BHP Billiton Iron Ore would like to implement these changes immediately, the upgrade of infrastructure requires significant funding which requires a proper business review. This review is moving ahead as fast as the Company can deliver. In addition, like any major construction project, implementation time is limited by equipment availability and other constraints outside the Company’s control. For example, under the current market, the lead time required for ordering new plant is approximately 2 years. The dust improvement timeline indicated for the proposed targets incorporates estimated lead times.</p>
3.1.4	<p>The dust suppression that is being used is far from state of the art.</p> <p>Submitters</p>	<p>BHP Billiton Iron Ore conducts ongoing research and development in the area of dust reduction. This has resulted in a number of considerable breakthroughs in technology, which have been recognised globally. An example being the</p>

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	<ul style="list-style-type: none"> • Pam Gangell-Hardinge. • Arthur McColl. • Care for Hedland Environmental Association. 	<p>development of Low Frequency Microwave Moisture Analysers, which were developed by BHP Billiton and CSIRO at its Pilbara based iron ore operations and are now employed commercially by industry across Australia and overseas. These analysers enable controlled addition of water to ore on conveyors, the first of their kind.</p> <p>However, adapting new dust reduction technology to old plant remains a challenge, particularly at such a large scale. In these situations, solutions often require a multifaceted approach, which is the approach being adopted for the Port Hedland Operations.</p>
3.1.5	<p>According to the Community Information Sheet provided by BHPbilliton (July 2006) No 5, the company ‘is assessing the feasibility of moving and redeveloping tertiary crushing facilities at Newman.’ Any further approvals for expansion should be conditional upon this move taking place.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Morag Lowe 	<p>The de-commissioning of Tertiary Crusher Building 1 and 2 at Port Hedland are integral to planned expansion of capacity at Port Hedland.</p>
3.1.6	<p>Until the tertiary crushing facilities closure occurs, simple practical steps can be undertaken. ie lower the height of the stockpiles so that less dust gets blown around in the wind. Over the past few days the stockpiles have been very high and we are experiencing windy conditions... we also have a lot of dust.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Morag Lowe 	<p>BHP Billiton Iron Ore agree that during the last few months there has been periods which have resulted in higher dust levels coming from Nelson Point. This is associated with high wind. BHP Billiton is working through operational controls to get on top of these periods.</p> <p>A Dust Management Plan has been developed by BHP Billiton Iron Ore that identifies a number of actions that are currently being or are planned to be implemented that will reduce dust.</p> <p>The stockpile height is governed by the design of the stackers and reclaimers which are fixed. All stockpiles are designed to be similar in height, which reach their maximum when not reclaimed.</p>

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		<p>Dust is more likely to be generated by the handling of ore than from stationary sources e.g. stockpiles.</p>
3.1.7	<p>Onsite work to seal remaining areas.</p> <p>Submitters</p> <ul style="list-style-type: none"> • Arthur McColl • Confidential submission 2. 	<p>Onsite work to seal open areas commenced following the Dust Performance Improvement Plan in 1995 and Dust Management Consultative Environmental Review in 1996. Since then a small amount of open areas have been progressively rehabilitated as they have become available.</p> <p>Initial work, 1996-97, focussed on sealing roads. In the period 1997-2000 a number of areas were revegetated including Burgess Point, adjacent to Tertiary Crushing and Screening Building 2, Fresh Water Recovery Plant, Fresh Water Recovery ponds, Northern boundary, south yard adjacent pond drive, Finucane Is car park and office areas.</p> <p>In 2001 a land use plan for Nelson Point and Finucane Island was developed. This plan included open areas available for re-vegetation. Progressive revegetation and sealing of open areas has continued through to the present. The land use plan is currently in review to include expansion projects that will increase the areas available for revegetation.</p> <p>Most recently, vehicle control has been implemented at the Nelson Point site with the establishment of a sealed external car park. Restrictions have now been placed on vehicles entering the site significantly reducing the volume of traffic entering the Nelson Point site and using roads. This has had a marked effect of reducing dust from roadways.</p>
3.2	Amenity	
3.2.1	<p>A comprehensive program of measures to mitigate the amenity impacts of dust deposition on residents and businesses in the West End and town centre continue to be developed and implemented. Actions that should be</p>	<p>A new ‘cleaning and greening’ program started in the West End of Port Hedland in October 2006. The program was the outcome of a BHP Billiton Iron Ore community consultation process to identify dust mitigation strategies, the proposed</p>

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	<p>considered included are greening, cleaning of buildings, sealing of buildings and cleaning of air-conditioners.</p> <p>Submitters</p> <ul style="list-style-type: none"> • Port Hedland Community Progress Association. • Narelle Shaw. • Pam Gangell-Hardinge. • Morag Lowe. • Kelly Howlett. • The Greens (WA) Pilbara Local Group. • Arthur McColl. • Confidential Submission 2. • Care for Hedland Environmental Association. 	<p>\$600,000 program is expected to visibly reduce dust and improve township amenity over the next 12 months and will target actions based on combined priorities identified from the community consultation process.</p> <p>The program commenced with a trial clean-up, including pressure cleaning of various CBD buildings and park facilities. The trial will be followed by a longer term program in partnership with and co-ordinated by the Pilbara Development Commission, to enhance the CBD.</p> <p>Current approved greening projects include landscaped gardens adjoining the visitor centre and art gallery, greening of Wilson and Anderson Street precinct, opportunities for West End residents to access plants for their gardens and development of a greening project such as with St Cecelia’s primary school. BHP Billiton Iron Ore is working with West End property owners to increase vegetation and greening in the area and welcomes discussions with residents who would like assistance to increase tree vegetation at their homes.</p> <p>Further consideration is being given by the company to undertaking an external house cleaning program in the West End. This should be finalised in the first quarter of 2007 with implementation to follow shortly afterwards. Car cleaning is also being considered.</p> <p>BHP Billiton Iron Ore would welcome the involvement of others to provide an all of industry approach to addressing the numerous issues identified by community members of the West End of Port Hedland.</p>
3.2.2	<p>It is acknowledged that a lot has been done through the Enhancement Schemes but parks are not enough and costly to service.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Pam Gangell-Hardinge 	<p>In 2002 BHP Billiton Iron Ore committed \$4.5M to enhance Port Hedland through the establishment of parks and infrastructure such as bus shelters, a new caravan park, historical walks and playground equipment. Unfortunately due to a range of reasons the project managers for the scheme (the Pilbara Development Commission) have been delayed in undertaking these projects, however the new parks are expected to be open for the public in early 2007.</p>

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		A budget for maintaining these facilities has been allowed for through the enhancement scheme
3.2.3	<p>It is not the role of the Pilbara Dev. Commission to be involved in any form of dust management. They have an important role in the development of community infrastructure and to be undertaking a commitment that should be the responsibility of the resources sector is not acceptable.</p> <p>Submitter</p> <ul style="list-style-type: none">• Morag Lowe	<p>BHP Billiton Iron Ore has taken a lead in the improvements to the ‘West End’ of Port Hedland and is encouraging all businesses in the area to play a role.</p> <p>Decisions on the priorities and activities of the Pilbara Development Commission are made through the Minister for Regional Development.</p> <p>BHP Billiton Iron Ore appreciates the work that the Pilbara Development Commission undertakes for Port Hedland and will continue to work collaboratively to get the best outcomes for all based on feedback from community consultation programs and Government and industry priorities.</p>
3.2.4	<p>BHPbilliton should be fully accountable for the financial outlay of any dust cleaning operations and this approval should be conditional upon a guaranteed amount of money being allocated for this exercise. As of the 30th October 2006, very little has been done and for BHPbilliton to state that ‘further consideration’ will be given is not acceptable...this should be a condition of this expansion application.</p> <p>Submitter</p> <ul style="list-style-type: none">• Morag Lowe	<p>BHP Billiton Iron Ore has taken the lead in the improvements to the “West End” of Port Hedland and is encouraging all businesses and industry in the area to play a role.</p> <p>See also point 3.2.1 above.</p>
3.2.5	<p>BHPbilliton have mentioned 'greening' activities...the lack of visual enhancement of the Port Hedland BHP site is of serious concern to the writer...the very fact that the situation has been allowed to evolve to the stage that Port Hedland would be deemed to be one the most unattractive towns in Australia is a damning indictment on the corporation's past commitment to the well-being of the Community. Any further expansion should be conditional upon a 'greening program' being put in place, with</p>	<p>BHP Billiton Iron Ore has made a significant contribution to the visual amenity of the West End of Port Hedland over the past few years.</p> <p>In 2002 BHP Billiton Iron Ore established the Marapikurrinyg Park at the end of Wedge St Port Hedland with the support of the Town of Port Hedland. This park replaced an unsealed car park.</p>

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	<p>time-frames for implementation being stipulated.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Morag Lowe <p>"Get real" about returning value to the Town especially on the coast. More real value returned to the Community.</p> <p>BHP should undertake massive cultural and marina projects to acknowledge the privilege extended to them of being here in an established town and as a genuine measure provide amenity on par with metropolitan Perth, thus reducing the scourge of Fly in Fly Out.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Arthur McColl 	<p>In 2003 BHP Billiton committed to a \$2M program of greening in the West End. This work was completed in 2005.</p> <p>Complementing this BHP Billiton Iron Ore committed a further \$4.5M to enhance Port Hedland through the establishment of parks and infrastructure such as bus shelters, a new caravan park, historical walks and playground equipment. Unfortunately due to a range of reasons the project managers for the scheme (the Pilbara Development Commission) have been delayed in undertaking these projects however the new parks are expected to be open for the public in early 2007.</p> <p>In October 2006 BHP Billiton Iron Ore committed \$1.1M to further upgrading Wedge and Edgar Streets in Port Hedland through a sculpture walk, visitor centre and the Courthouse arts centre upgrades.</p> <p>Further enhancements to the area are being developed.</p>
3.2.6	<p>BHP must seriously commit to massive increase of funding for local infrastructure and amenities.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Arthur McColl 	<p>BHP Billiton Iron Ore undertakes regular maintenance of all its properties. The scheduling of major building programs is often dependent on a number of factors including ensuring sustaining processes are able to be employed following programs.</p> <p>BHP Billiton Iron Ore is funding a range of initiatives to enhance the town centre. Current programs address cleaning, greening, amenity, parks, infrastructure upgrades of the visitor centre and art gallery.</p> <p>Further initiatives are being considered with a focus on tourism.</p>
3.3	Land Use	
3.3.1	<p>There is no explanation in the Section 46 document, of which land uses in the west end of town were considered to be 'incompatible', or what they were incompatible with, (presumably the adjoining land use of iron ore</p>	<p>Incompatible land use in this context refers to the multiple land use and the proximity to subject activities in the West End precinct including:-</p>

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	<p>stockpiles and export).</p> <p>Submitter</p> <ul style="list-style-type: none"> • Port Hedland Community Progress Association 	<ul style="list-style-type: none"> • Residential, • Commercial, • Light Industrial, • Heavy Industrial (including iron ore stockpiles), and • Port activities.
3.3.2	<p>Residential zoning of up to R50 over most of the West End has been in place since the early 1980's The degree of incompatibility arises almost entirely in consideration of the amenity impacts of dust generated by BHPBIO's operations, with health impacts not being conclusively demonstrated in Part 2 of the Dust Review currently being undertaken by the DoH.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Port Hedland Community Progress Association 	<p>Incompatibility does apply to the Port industrial activities which include but is not limited to iron ore and associated amenity impacts with dust.</p>
3.3.3	<p>Any attempts to change R codes and zoning instead of properly monitoring and controlling emissions can be seen as an attempt to first devalue Central Business District property prior to either compulsory or voluntary acquisitions.</p> <p>BHP and State Government to leave R-codes and zoning alone, this is an old established Town not a dedicated mining town.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Arthur McColl 	<p>The Town of Port Hedland is undertaking an exciting and challenging task of preparing a long range Land Use Master Plan.</p> <p>The Land Use Master Plan focuses on the use of land and its development to guide the growth of Hedland over the next 20-25 years. It is a first step towards updating the Town Planning Scheme which was last reviewed in 2001.</p> <p>The planning process is being directed by a large Steering Committee representing a wide range of stakeholders in the Hedland community and key Government agencies responsible for effective land development in the Pilbara.</p> <p>The Steering Committee has identified 10 key land use issues that need to be addressed by the Plan. People with knowledge and expertise in these areas were then invited to a series of workshops to review constraints and identify options for each issue.</p> <p>It is BHP Billiton Iron Ore's understanding that these options will be widely</p>

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		discussed and modified in a Community Summit planned for Sunday 3 December 2006. Ideas and preferences from this forum will be used to prepare two or three alternative overall plans which will be reviewed at a second Community Summit in early 2007. Input from this second forum will be used to develop a Draft Land Use Master Plan which the community will have a further opportunity to review, prior to its formal submission to Council for adoption.
3.4	Water-Use Management	
3.4.1	<p>I do believe if they used salt water on their roads as dust control, it will reduce the water usage</p> <p>Submitter</p> <ul style="list-style-type: none"> • Darryl Brown 	Alternative options for water are considered as part of our growth planning processes.
3.5	Health Studies	
3.5.1	<p>Given that the iron ore particles are extremely coarse and abrasive and are likely to tear and damage the sac walls, the notion that the NEPM Standards should not apply in an area where air quality regularly exceeds the Health Authorities safe exposure level by 30 times is of great concern.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Warren Jacka 	<p>Many years of data from occupational exposures as well as toxicological studies investigating the effects of iron dusts and potential impact in the lungs is available. Research to date indicates that iron ore particles are relatively inert and non-inflammatory. There is no significant evidence to suggest that exposure to these particles would result in any significant damage, inflammation or fibrosis in the lungs.</p> <p>See also point 2.1.2 above.</p>
3.5.2	<p>BHP should conduct a whole of community health study as Alcoa are doing for their site at Wagerup, to truly understand the effects of their pollution on public health and safety and the community.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Warren Jacka 	BHP Billiton Iron Ore is concerned with any potential health impact of dust and is committed to investigating and actively pursuing understanding of any potential aspects that may impact health. As such, BHP Billiton Iron Ore are in full support of the 3-part review currently being undertaken by the Department of Health which includes an independent literature review and toxicological studies to assess the level or risk from exposure to dust.

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		<p>Initial discussions with both the Department of Health and the Asthma and Allergy Research Institute indicated that a community health study would not have sufficient power to detect any expected health effects of concern from the known levels of dust exposure.</p> <p>It was considered more appropriate in this situation to determine any effects through well-designed university-based research as is being conducted by the Department of Health. Dependant on the outcomes of these studies, additional research may be undertaken to further understand any potential effects on public health and safety.</p>
3.5.3	<p>Consultation to date has downplayed and misrepresented the Health Impacts of Dust.</p> <p>Submitter</p> <ul style="list-style-type: none">Care for Hedland Environmental Association	<p>BHP Billiton is concerned with any potential health impact of dust and as such, is in full support of the Department of Health investigation into the health impacts of particulate pollution in Port Hedland. We remain committed to ensuring the health of our employees and community is not impacted adversely by our operations. We will continue to be active in expanding our understanding of the potential effects of our operation.</p>
3.5.4	<p>Iron ore dust is associated with silicosis and pneumoconiosis.</p> <p>Submitter</p> <ul style="list-style-type: none">Care for Hedland Environmental Association	<p>Studies from occupational exposure to iron oxide dusts have shown that long term inhalation can result in a benign pneumoconiosis (siderosis) detectable on chest x-rays. Respiratory function is not normally affected. In addition, iron ore contains low levels of silica and other trace elements, however silicosis has not been a significant feature with iron ore exposure, unless there has been concomitant exposure to high levels of free respirable crystalline silica.</p> <p>Any effects on the lung from iron ore exposure have only been seen with long term exposures at levels many times higher than those currently experienced both in the workplace and the community. In investigating this potential health impact, the authors of the '<i>Literature Review and Report on Potential Health Impacts of Exposure to Crustal Material in Port Hedland</i>', which is still to undergo final peer review, noted that aerosol concentrations of iron oxide particles at least 100 times greater than concentrations of PM₁₀ in Port Hedland did not cause an appreciable or</p>

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		<p>adverse effect on the lung in healthy subjects.</p> <p>BHP Billiton is in full support of the 3-part review currently being undertaken by the Department of Health which will assist in the further understanding of the potential health effects of crustal dust, including iron ore dust, in the Port Hedland area.</p>
3.5.5	<p>20% of the South Australia's asthma problems result from windborne dust (Williams & Young, 1999).</p> <p>Submitter</p> <ul style="list-style-type: none"> • Care for Hedland Environmental Association 	<p>Windborne dust from rural areas contains a number of agents well known to be associated with the exacerbation of asthma including pollens, fungal spores, animal fibres, organic materials and bacterial endotoxins. The study referred to indicated that in urban areas, the dust from rural areas could make up to 20% of the asthma causing dust, not 20% of the population's asthma. There is some research that dust from rural areas is important in the development of symptoms in some asthmatics. In particular, the research suggests it is the very fine component of the dust (PM_{2.5}) and the components of this dust, endotoxins and pollens that are the important factors in this dust.</p> <p>To date, there has been no evidence that Port Hedland dust, and in particular iron ore dust, is associated with any such adverse outcomes in relation to the exacerbation of respiratory disease or asthma. In their literature review, which is being conducted as part of the Department of Health's 3 part review, the Asthma and Allergy Research Institute did not identify the potential exacerbation of asthma as a main issue of concern. The literature review is still to undergo peer review.</p>
3.5.6	<p>In a rural area of California in which coarse particles constituted 50 - 90% of the PM10 fraction, a 10 µg/m³. increase in daily PM10 was associated with an increase in total mortality of 1%.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Care for Hedland Environmental Association 	<p>Understanding of the potential health effects of coarse particulates is an area which requires further research and is the main focus for the independent literature review commissioned by the Department of Health as part of the 3-part review.</p> <p>Although waiting on peer review for finalisation, the initial draft suggests that daily mortality was not associated with exposure to coarse particulates, but rather short term morbidity. This is an area that needs further research.</p>

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		<p>Studies conducted in the US on coarse particulates and in rural areas are often confounded by the presence of particles both from industrial activities, and anthropogenic activities such as farming. The coarse particles are not purely crustal in origin and contain endotoxins, organic matter, especially from animal wastes and soluble metals.</p> <p>The research is not consistent and as such the USEPA has not applied the Air Quality Standards to rural areas. There is reasonable evidence that dust primarily from crustal origin is unlikely to be associated with mortality and or serious morbidity.</p>
3.6	Other	
3.6.1	<p>Effectively, the Port Hedland community is subsidising the Company. BHPB is not paying the full cost of its production, some of which is borne, uncompensated, by residents and businesses on the peninsula. Therefore, Care for Hedland supports full payment of all of the costs of pollution by the polluter. In practice that would require:</p> <p>Submitter</p> <ul style="list-style-type: none"> • Care for Hedland Environmental Association <p>Negotiate money for TOPH Council in lieu of lost rating ability caused by State Agreement.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Arthur McColl 	<p>BHP Billiton is the largest ratepayer in Hedland and Newman. In the past financial year, BHP Billiton Iron Ore paid almost \$3 million in rates to the Town of Port Hedland and the Shire of East Pilbara, of which almost one third related to our operational activities. We are also one of the largest contributors to regional communities and, during this same period, invested more than \$12 million in community initiatives in Port Hedland, South Hedland, Newman and Perth. This includes partnerships recently agreed with the Town of Port Hedland and the Shire of East Pilbara, whereby the Company contributes \$1 million per annum to each Council to help improve health and education services, community facilities and support for Indigenous employment.</p> <p>BHP Billiton Iron Ore is a participant in a study which is designed to provide the State Government with a better understanding of the impacts, if any, that clauses in State Agreement Acts have on local Government rates.</p> <p>We are committed to the sustainability of the communities in which we operate and, while there are a number of challenges for private industry and all levels of Government, we remain committed to working with community and all stakeholders</p>

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		in making these towns better places to both live and work.
3.6.2	<p>While BHP continues to regard pollution as being caused by strong local winds and not the processing of millions of tonnes of iron ore annually in the middle of the town, the issue will not be resolved satisfactorily.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Warren Jacka 	<p>BHP Billiton Iron Ore recognises the need to reduce dust levels associated with its' Nelson Point and Finucane Island operations. The company has commenced a number of programs aimed at reducing dust levels. The Section 46 document identifies a number of initiatives that will significantly reduce dust associated with the Port Hedland operations.</p>
3.6.3	<p>The town is under resources with too much crime and a poor image with the general dust.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Pam Gangell-Hardinge 	<p>BHP Billiton Iron Ore is working in partnership with the Western Australian Police Force to reduce crime through a number of initiatives which commenced in December 2006. These initiatives include new Police horse patrols, additional Police officers, CCTV cameras installed at “hot spots” and a reinvigoration of the neighbourhood watch program.</p> <p>While BHP Billiton Iron Ore is taking a supporting role in assisting the Police to reduce crime, however, to be successful, it remains the responsibility of the entire Hedland community to work together to reduce crime.</p>
3.6.4	<p>BHP not to involve itself in activities like lobbying State Government.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Arthur McColl 	<p>BHP Billiton Iron Ore has an active relationship with the State Government of Western Australia and has successfully engaged various Government Departments on matters that impact the community. Following outcomes of the social impact assessment program over the past two to three years, assisted by Coakes Consulting, BHP Billiton has been able to advocate for the towns around community nominated priorities. Positive activities include partnership agreements focused on Government service delivery in the areas of Education and Health. BHP Billiton Iron Ore also regularly engages the State Government on matters pertaining to law and order, community development and youth services.</p>
3.6.5	<p>BHP not involve itself in arranged external reviews that so obviously bring out results favourable to BHP.</p>	<p>The studies being conducted and coordinated by the Department of Health were instigated in response to the finding of the Enquiry by Design that an investigation take place on the health impacts of particle pollution in the town. The Department</p>

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	<p>Submitter</p> <ul style="list-style-type: none"> • Arthur McColl 	<p>of Health has total control of the studies. Industry, including BHP Billiton Iron Ore, has been required to contribute to the costs of the study.</p>
3.6.6	<p>Coaks Consulting are effectively on the pay roll. The dust emissions from the recently expanded Finucane Island operations of BHP have always impacted on house walls at Spinifex Hill, some two kilometers from BHP operations.</p> <p>BHP must refrain from hiding behind consultants paid to get favourable result.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Arthur McColl 	<p>BHP Billiton Iron Ore has employed Coakes Consulting with the collection and development of data relating to the communities in Port Hedland and Newman. Using this data they have also provided advice to BHP Billiton Iron Ore on future community programs in light of the growing business and changing community expectations. One of the key factors in appointing Coakes Consulting to assist in this work is due to their national reputation and expertise. They have had great success in assisting both industry and communities to work together to find a common vision for future planning, as is demonstrated in the Illawarra region of NSW.</p> <p>The company employs consultants who have specific expertise to complement existing employees. In terms of the Section 46 consultation process it was believed consultation could be better facilitated by using a third party who have expertise in social science research.</p>
3.6.7	<p>BHP's continued purchase of businesses in the CBD indicates they have no faith in their ability to properly manage this issue and wish to minimize the potential complainants.</p> <p>Submitter</p> <ul style="list-style-type: none"> • John Glover 	<p>BHP Billiton Iron Ore has previously chosen to purchase properties opportunistically in the West End of Port Hedland. In light of the Land Use Master Plan project, BHP Billiton Iron Ore has recently slowed purchasing activities in this area. BHP Billiton Iron Ore is currently participating and funding (\$340,000) the public Port Hedland Master Planning Process to develop a new town vision and subsequent Town Plan. Once this Plan has been developed, the Company will then reconsider its position in this regard.</p>
3.6.8	<p>Care for Hedland Environmental Association strongly support greenhouse gas emission targets for BHP Billiton.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Care for Hedland Environmental Association 	<p>While greenhouse gas emission is not dealt with under this review, BHP Billiton Iron Ore is conscious of this issue and is working in the energy and greenhouse gas areas to seek lower carbon output and has plans in place to manage emissions.</p>

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No.	ISSUES RAISED BY SUBMITTERS.	BHP BILLITON IRON ORE RESPONSE.
3.6.9	<p>It is unclear to Care for Hedland why this is the responsibility of the polluter, not the Government. It is unclear to Care for Hedland why these require changes to the Company's Licence conditions.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Care for Hedland Environmental Association 	<p>BHP Billion Iron Ore is seeking an amendment to commitments set in Ministerial Statement 433. This process has been initiated by BHP Billiton Iron Ore.</p>
4	Comments More Suitably Directed to Government.	
4.1	<p>According to the NEPM Guidelines, the risk of lung infection to the Port Hedland community is considerable as a result of the pollution cause by iron ore processing. If Bird Flu epidemic that the Health Authorities are so concerned about eventuates this year and the mutation of the human to human strain occurs as predicted, then we will obviously be the most vulnerable community in the State. That is an example of the level of misery and suffering our community is threatened with by this attempt to avoid the governments' clear air policy, and to put profits and new acquisitions ahead of Public Health and Safety.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Warren Jacka 	<p>This comment is acknowledged and is more suitably directed to Government.</p>
4.2	<p>Health studies recently carried out by the DoH that considered 10 years of hospital records showed elevated levels of respiratory disease in Port Heland. This should prompt further study.</p> <p>Submitter</p> <ul style="list-style-type: none"> • Warren Jacka 	<p>This comment is acknowledged and is more suitably directed to Government.</p>
4.3	<p>Submitter believe a Department of Environment and Conservation Officer should be based in Port Hedland.</p>	<p>This comment is acknowledged and is more suitably directed to Government.</p>

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No.	ISSUES RAISED BY SUBMITTERS.	BHP BILLITON IRON ORE RESPONSE.
	Submitters <ul style="list-style-type: none">• Narelle Shaw• The Greens (WA) Pilbara Local Group	
4.4	The State Government (EPA) must prevent BHP from destroying the future of the CBD, West End, its heritage buildings and attractiveness to tourists. Submitter <ul style="list-style-type: none">• Arthur McColl	This comment is acknowledged and is more suitably directed to Government.
4.5	The EPA are seen to be a toothless tiger that allows BHP in Port Hedland to constantly perform at well below 3rd world standards in terms of dust control. Submitter <ul style="list-style-type: none">• John Glover	This comment is acknowledged and is more suitably directed to Government.
4.6	Specific regulation of residential accommodation for the elderly and children; Submitter <ul style="list-style-type: none">• Care for Hedland Environmental Association	This comment is acknowledged and is more suitably directed to Government.
4.7	Some of the funding (\$500,000) being used in this clean-up has come from the State Government as an Election promise. Should taxpayer funding be used in this way.... Submitter <ul style="list-style-type: none">• Morag Lowe	This comment is acknowledged and is more suitably directed to Government.

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Table 2. Care for Hedland Environmental Association Inc: Comments Submitted Against Proposed Changes and Performance of Existing Conditions and Commitments of Ministerial Statement 433.

Ministerial Statement 433 Condition or Commitment	Care for Hedland Environmental Association's understanding of BHPB Reason for Change	Care for Hedland Environmental Association's View	BHPBIO Response
1		No comment.	
2	No change.	No comment.	
3		No comment.	
4 Time Limit on Approval	Delete.	BHPB has not fulfilled conditions. EPA should ensure compliance with all conditions.	BHP Billiton Iron Ore believes it has met this condition and is no longer required.
5 Audit Program	No change.	Audits not discussed in Review.	<p>BHP Billiton is not seeking to change this condition.</p> <p>However, the DEC carries out an annual audit of BHP Billiton Iron Ore's Nelson Point and Finucane Island facilities. Audits have been carried out by the relevant authority since 1996.</p> <p>BHP Billiton Iron Ore also has reported on status against Ministerial Conditions as part of its Annual Environmental Review.</p>

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Ministerial Statement 433 Condition or Commitment	Care for Hedland Environmental Association's understanding of BHPB Reason for Change	Care for Hedland Environmental Association's View	BHPBIO Response
6 All care and due diligence to ensure protection of environment.	No change.	Not met - at least amenity damage to the environment.	BHP Billiton is not seeking to change this condition.
7. Annual Audit / Five Year Review	No change	Not referenced in Sn 46 request.	BHP Billiton is not seeking to change this condition.
1.1 ISO 9000 and ISO 14000	No change.	BHPB HSEC does not appear to have ISO 9000 or 14000 accreditation.	BHP Billiton Iron Ore is not seeking to change this commitment. However, BHP Billiton Iron Ore was certified for ISO14001 in June 2002 and most recently recertified in September 2005 as part of regular audit requirements under the Standard. Certification for ISO 9000 was first received in 1994 with the most recent recertified in August 2006.
1.2 Benchmarking all PH Operations	No change.	No evidence of benchmarking against comparable iron ore or similar export operations.	This will be maintained in Commitment 1. BHP Billiton Iron Ore regularly reviews aspects of other operations in identifying improvement opportunities. This includes both BHP Billiton global operations and other companies with similar operations.

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Ministerial Statement 433 Condition or Commitment	Care for Hedland Environmental Association's understanding of BHPB Reason for Change	Care for Hedland Environmental Association's View	BHPBIO Response
1.3 Consultation	No change.	Limited or no opportunity to have real influence on Dust Management. E.g. repeated requests for online, realtime air quality reporting have been ignored.	BHP Billiton Iron Ore has strengthened its' commitment to public consultation. This is now a stand alone commitment, Commitment 5, Community and Stakeholder Engagement. Additionally, Commitment 6, Ambient Dust Monitoring includes a commitment where BHP Billiton Iron Ore will support a review of an Ambient Dust Monitoring Review to be led by Department of Environment and Conservation that will involve the community and will involve web based reporting of data compiled from continuous monitoring equipment.
2,1 Community Complaints Register	Seeks replacement with 'Dust Management & Water Use Efficiency Plans'	Register should remain and should be available for public inspection.	<p>BHP Billiton Iron Ore maintains and reports on it Community Complaints Register and associated follow-up actions as part of its' Annual Environmental Review. This is referenced in the Dust Management Program.</p> <p>BHP Billiton Iron Ore will continue to maintain the register and will continue to record and respond to complaints. BHP Billiton Iron Ore will also continue to support confidentiality where requested by members of the community.</p>
2.2 TSP or PM50 criteria – Kwinana.	Seeks replacement with 'Dust Management & Water Use Efficiency Plans'	Kwinana limit of 260ppm is unacceptable in residential area.	BHP Billiton Iron Ore has proposed a long-term annual average target for TSP of 65µg/m ³ to be monitored at the Hospital site.

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Ministerial Statement 433 Condition or Commitment	Care for Hedland Environmental Association's understanding of BHPB Reason for Change	Care for Hedland Environmental Association's View	BHPBIO Response
2.3 Performance targets based on complaints and exceedances.	Seeks replacement with 'Dust Management & Water Use Efficiency Plans'	Basic requirement – retain.	BHP Billiton Iron Ore proposes targets that can be used to demonstrate continual improvement in performance, in level of dust, community amenity and perception. These are shown as a table in Commitment 3.
2.4 Informing Port Hedland Dust Management Committee	Seeks replacement with 'Dust Management & Water Use Efficiency Plans'	Committee does not appear to exist - no public minutes or records of meetings or actions.	The Port Hedland Dust Management Committee no longer meets and has been replaced by the Port Hedland Air Quality Reference Group. This group is convened and chaired by the Department of Environment and Conservation. BHP Billiton Iron Ore is a member of this group.
2.5 Residential TSP monitoring program.	Seeks replacement with 'Dust Management & Water Use Efficiency Plans'	Not carried out?	TSP monitoring has been conducted and will continue to occur at Harbour, Hospital, South Hedland and the Air Port sites. The TSP monitoring program will be reviewed in a Department of Environment and Conservation led ambient air quality monitoring review with changes made as necessary as a result of that review.
3.1 Upgrade materials handling	Replace with 'Performance Targets'	Should be ongoing until dust pollution is significantly reduced.	See points 3.1.2 and 3.1.3 from Table 1.

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3.2 Upgrade dust suppression equipment	Replace with 'Performance Targets'	Should be ongoing until dust pollution is significantly reduced.	See points 3.1.2 and 3.1.3 from Table 1.
3.3 Upgrade traffic and open areas.	Replace with 'Performance Targets'	Little or no progress evident.	See point 3.1.7 from Table 1.
3.4 Dust management system.	Replace with 'Performance Targets'	Greater community participation, oversight and influence on Dust Management system.	BHP Billiton Iron Ore supports community involvement as demonstrated in Commitment 5 and Commitment 6.

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4 Continual review of DM technology	Replace with 'Revision of Performance Targets'	Maintain. Existing technology is not benchmarked and monitoring equipment is inferior.	<p>BHP Billiton Iron Ore maintains this commitment both within Commitment 1, Port Hedland Operations Dust Management Program, and as a requirement to meet the revised performance targets.</p> <p>BHP Billiton Iron Ore's monitoring equipment aligns with Australian Standards. In addition, the continuous monitoring network is substantial and set up in parallel with USEPA guidelines. However, as described in this document, BHP Billiton is open and willing to support a complete monitoring program review and make changes to locations, methodology and reporting as recommended.</p>

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<p>5.1 Monitor PM10 against PM10 maximum 24 hour average of 150µg/m³</p>	<p>Replace with 'Community & Stakeholder Engagement'</p>	<p>All reporting requirements should be maintained to ensure records continuity, and new datasets should be required.</p> <p>Pollution level is ridiculously high. Dust could be three times worse than it is, and it would barely trigger 150.</p> <p>Replace with NEPM threshold of 50, and target 10 exceedances.</p> <p>Monitoring equipment should be tested against Australian Standard by NATA-accredited testing laboratory.</p>	<p>BHPBIO Response</p> <p>Monitoring currently carried out will be maintained until the completion of the Ambient Dust Monitoring review to be led by Department of Environment and Conservation at which time, BHP Billiton Iron Ore will change its monitoring regime as necessary.</p> <p>BHP Billiton has significantly reduced the long-term PM₁₀ target from 150µg/m³ to 70µg/m³ with 10 exceedances.</p> <p>See also point 2.1.2 from Table 1.</p> <p>BHP Billiton Iron Ore believes therefore that the number of exceedances of the NEPM per se is not a representative measure of performance. Given the unique environmental conditions inherent in Port Hedland, exceedances are going to occur.</p> <p>The dust monitoring equipment used by BHP Billiton Iron Ore in Port Hedland meets relevant Australian Standards.</p>

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Ministerial Statement 433 Condition or Commitment	Care for Hedland Environmental Association's understanding of BHPB Reason for Change	Care for Hedland Environmental Association's View	BHPBIO Response
5.2 Inform PHDMC.	Replace with 'Community & Stakeholder Engagement'	PHDMC non-existent.	<p>The Port Hedland Dust Management Committee no longer meets and has been replaced by the Port Hedland Air Quality Reference Group. This group is convened and chaired by the Department of Environment and Conservation. BHP Billiton Iron Ore is a member of this group.</p> <p>Dust management information is provided to the community through a number of avenues. Dust information is provided weekly through the <i>North West Telegraph</i>. It is also provided at meetings with the Community Consultative Group, the Town of Port Hedland and with other stakeholders such as the Care for Hedland Environmental Association. In addition, more comprehensive consultation has occurred with residents in the West End as part of the Company's social impact assessment process.</p>
6 Inform community on status of environmental health impacts on a regular basis..	Replace with Ambient Monitoring Review	Interpretation of data presented is questionable and cursory. This condition should be maintained and enforced.	BHP Billiton Iron Ore's commitment to work with the community, including, amongst other things, providing the community with information, is also retained in Commitment 1. Port Hedland Operations Dust Management Program and Commitment 5. Community and Stakeholder Engagement.

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7.1 Dust deposition / vegetation monitoring program.	Delete	Nothing since 1997.	<p>Dust deposition monitoring as per AS2724 is on-going. In addition hyperspectral monitoring using the HyMap sensor and processed using algorithms developed by BHP Billiton Iron Ore and CSIRO have been produced since 1999 providing deposited dust maps across Port Hedland with an accuracy of mg/cm². The intention of this research is to replace the archaic depositional monitoring method with hyperspectral measurement. BHPB Iron Ore will continue to work closely with the DEC to progress this.</p> <p>See also point 1.3.1 from Table 1.</p>
7.2 Effluent discharge / harbour monitoring.	Delete	Results, if any, should be published and peer-reviewed.	<p>Stormwater monitoring is conducted at both Nelson Point and Finucane Island. BHP Billiton Iron Ore does not discharge effluent to the environment. See 1.3.1 from Table 1. for other marine monitoring.</p> <p>If a discharge to harbour should occur, the event is reported to the appropriate authority and it is published in the Annual Environmental Review. Six monthly harbour monitoring is undertaken and the data is published in the Annual Environmental Report.</p>

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7.3 Inform PHDMC	Delete	Non-existent.	<p>BHP Billiton Iron Ore attends meetings of the Port Hedland Air Quality Reference Group. This group is convened and chaired by the Department of Environment and Conservation.</p> <p>BHP Billiton Iron Ore continues to routinely engage with the State and Local Government bodies as necessary. BHP Billiton Iron Ore will also continue to work with its social impact assessment process.</p> <p>See also point 5.1.</p>
8 Inform community on status of ecological impacts.	Delete	Little if any substantive information has been provided to community on environmental impacts of dust deposition and / or effluent discharge.	Feedback and information has been made available to the community via Port Hedland Air Quality Reference Group; the Annual Environmental Review; and via published articles in a number of journals (hyperspectral monitoring results).

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Ministerial Statement 433 Condition or Commitment	Care for Hedland Environmental Association's understanding of BHPB Reason for Change	Care for Hedland Environmental Association's View	BHPBIO Response
9. Develop and implement programs to minimise iron ore fines waste generation.	Incorporated in revised Dust Management Program	Little if any progress appears to have been made.	Implementation of the Dust Management Plan has commenced. The plan includes actions related to the four main enablers of dust - product moisture, equipment condition, operating processes and site conditions. Within each lies efforts to improve performance including capital and operating improvements. Quarterly and annual reviews of the plans will be undertaken by site management and communicated according to the review process outlined in the Plans.