



# Final Report

# 2010 Performance Audit and Asset Management System Review for Perth Power Partnership

| Audit Report | Authorisation | Name | Position | Date |
|---|---|---|---|---|
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| Agreed By (licensee) | | Debasis Baksi | Perth Power Partnership | September 2010 |

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September 2010
Audit Report No: KPC0910_3

***1. EXECUTIVE SUMMARY ..... 5***

**1.1 Performance Audit Summary ..... 7**

**1.2 Asset Management System Review Summary ..... 9**

***2. PERFORMANCE AUDIT ..... 10***

**2.1 Performance Audit Scope ..... 10**

**2.2 Performance Audit Objective ..... 11**

**2.3 Performance Audit Methodology ..... 12**

**2.4 2010 Post Audit Implementation Plan ..... 16**

***3. Asset Management System Effectiveness Review ..... 18***

**3.1 AMS Review Scope ..... 18**

**3.2 Objective of the Asset Management System Review ..... 22**

**3.3 Methodology for Asset Management System Review ..... 22**

**3.4 2010 Post Audit Implementation Plan ..... 29**

***4. FOLLOW UP AUDIT PROCESS ..... 29***

***LIST OF APPENDICES***

1. Perth Power Partnership: Kwinana Cogeneration Plant Performance Audit Review September 2010

2. Perth Power Partnership: Kwinana Cogeneration Plant Asset Management System Review September 2010

## GLOSSARY

**BP** – British Petroleum

**Corriolis** – Supplier Name – Flow monitoring device

**DAS** – Data Acquisition System

**DCS** – Distributed Control System

**GES** – Geographe Environmental Services

**EMPAC** – Enterprise Maintenance Planning And Control *(proprietary asset management software)*

**ERA** – Economic Regulation Authority

**HRSG** - Heat Recovery Steam Generators

**KCP** – Kwinana Cogeneration Plant

**LAN** – Local Area Net work

**IMO** – Independent Market Operator

**IPM** – International Power Mitsui *(a limited liability partnership formed between International Power Plc of England (70%), and Mitsui & Co Ltd of Japan (30%), Authorised agent for Perth Power Partnership*

**IPR/IPL** – International Power (*International Power plc is a leading independent electricity generating company with 30,807 MW gross (18,935 MW net) in operation and 224 MW gross (149 MW net) under construction. International Power has power plants in operation or under construction in Australia, the United States of America, the United Kingdom, the Czech Republic, France, Germany, Italy, the Netherlands, Portugal, Spain, Turkey, Bahrain, Oman, Qatar, Saudi Arabia, the UAE, Indonesia, Pakistan, Puerto Rico and Thailand. International Power is listed on the London Stock Exchange with ticker symbol IPR. Company website: www.ipplc.com)*

**IT** - Information Technology

**MARSH –** *(IPR's Insurance Broker and assists IPR in determining insurance and risk control strategy for their operations and provides IPR Australia and IPM Kwinana with expert engineering loss control opinion)*

**PPP** – Perth Power Partnership *(a partnership between IPM (70%) and Transfield Services Infrastructure Fund (30%)), License holder of EGL8*

**RFG** – Refinery Fuel Gas

**SafetyTV** - On-line training system supplied by VOCAM

**WPN** – Western Power Networks

**SurveyMonkey** – On-line customer satisfaction survey

*This report is prepared by representatives of GES Pty Ltd in relation to the above named client's conformance to the nominated audit standard(s). Audits are undertaken using a sampling process and the report and its recommendations are reflective only of activities and records sighted during this audit process. GES Pty Ltd shall not be liable for loss or damage caused to or actions taken by third parties as a consequence of reliance on the information contained within this report or its accompanying documentation.*

## Quality Control Record

| | CLIENT | DATE |
|---|---|---|
| REQUESTED BY | MARK JAMESON: PERTH POWER PARTNERSHIP | JANUARY 2010 |
| PREPARED BY | NICOLE DAVIES | SEPTEMBER 2010 |
| CHECKED BY | BRIAN McKENRY | SEPTEMBER 2010 |
| REVISION | 3 | SEPTEMBER 2010 |

# 1. EXECUTIVE SUMMARY

The Kwinana Cogeneration Plant (KCP), located within the Kwinana Industrial Strip, Kwinana Beach, is a gas turbine combined cycle-cogeneration plant capable of producing up to 124MW electrical output (capacity declared to the IMO at ISO conditions) and 2,300 tonnes per day of process steam with the use of duct firing on the heat recovery steam generators (HRSG).

The plant consists of two gas turbines generators, two heat recovery steam generators, and one controlled extraction condensing steam turbine generator. Steam is extracted from the steam turbine and delivered for process use as well as to the deaerator as heating system.

Electricity generated is provided to Verve Energy and the BP Kwinana oil refinery under Long Term Power Purchase Agreements. The process steam is provided to the refinery, also under Long Term Agreement.

Perth Power Partnership (PPP) has engaged Geographe Environmental Services (GES) to undertake the second Performance Audit and Asset Management System Review as required by the Economic Regulation Authority (ERA) under generation licence EGL8 under the *Electricity Industry Act* 2004.

This combined report contains the audit findings for both the Performance Audit and Asset Management System Review.

Sections 13 & 14 of the Electricity Industry Act 2004 require as a condition of every licence that the licensee must, not less than once in every period of 24 months (or any longer period that the Authority allows) calculated from the grant of the licence, provide the Authority with a Performance Audit and Asset Management System Review conducted by an independent expert acceptable to the Authority.

The Authority approved the appointment of GES Pty Ltd on the 7th May 2010 and subsequently required the development of an audit plan for ERA approval. Notification of the approval of the audit plan for the 2010 Performance Audit of Licence EGL8 was provided by the ERA.

The period for the audit and review is 1st July 2008 to 30th June 2010, and the report is submitted to the Authority before 30 September 2010 as evidence of compliance with the Authority's requirements.

The Asset Management System Review and the Performance Audit have been conducted in order to assess the effectiveness of the Perth Power Partnership Asset Management Systems and level of compliance with the conditions of its Generation Licence EGL8. Through the execution of the Audit Plan, field work, assessment and testing of the control environment, the information system, control

procedures and compliance attitude, the audit team members have gained reasonable assurance that Perth Power Partnership: Kwinana Cogeneration Plant has an effective asset management system and has complied with its Generating Licence during the audit period 1st July 2008 to 30th June 2010, with the exception of Licence Condition 4.1 (Compliance Reporting Manual Ref 85). It is noted that this non-compliance was in relation to the payment of ERA Licence fees and all root causes have been identified and resolved in order to ensure future compliance (Refer to Table 5). This audit report is an accurate representation of the audit teams findings and opinions.

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## *1.1 Performance Audit Summary*

With the exception of Licence Conditions 4.1, which is in relation to the late payment of fees, all licence requirements reviewed were found to be compliant during the audit.

As required in section 11.4.1 of the Audit Guidelines – Electricity, Gas and Water Licences (August 2010) Table 1 summarises the compliance rating for each licence condition using the 7-point rating scale described in Table 3 (Refer Section 2.3 Methodology).

A comprehensive report of the audit findings is included in Appendix 1.

There were Generation Licence compliance elements that were not included in the scope of this audit because they did not eventuate in this audit period or have not been established within licence EGL8. These are defined in Table 1.

## Table 1 : Performance Audit Compliance Summary

| Generating Licence Reference (Cl = Clause, Sch = Schedule) | Generation Licence Criteria | Likelihood | Consequences | Inherent Risk | Adequacy of existing controls | Compliance Rating | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | NR | NA | 0 | 1 | 2 | 3 | 4 | 5 |
| Cl 1 | Definitions | | | | | | ✓ | | | | | | |
| Cl 2 | Grant of Licence | Unlikely | Minor | Low | Strong | | | | | | | | ✓ |
| Cl 3 | Term | Unlikely | Minor | Low | Strong | ✓ | | | | | | | |
| Cl 4 | Fees | Probable | Moderate | Low | Moderate | | | | | ✓ | | | |
| Cl 5 | Compliance | Unlikely | Moderate | Medium | Moderate | | | | | | | ✓ | |
| Cl 6 | Transfer of Licence | Unlikely | Major | High | Strong | | ✓ | | | | | | |
| Cl 7 | Cancellation of Licence | | | | | | ✓ | | | | | | |
| Cl 8 | Surrender of Licence | | | | | | ✓ | | | | | | |
| Cl 9 | Renewal of Licence | | | | | | ✓ | | | | | | |
| Cl 10 | Amendment of Licence on application of the Licensee | | | | | | ✓ | | | | | | |
| Cl 11 | Amendment of Licence by the Authority | | | | | | | | | | | | ✓ |
| Cl 12 | Expansion or Reduction of Generating Works, Distribution Systems and Transmission Systems | Unlikely | Minor | Low | Strong | | | | | | | | ✓ |
| Cl 13 | Accounting Records | Unlikely | Minor | Low | Strong | | | | | | | | ✓ |
| Cl 14 | Individual Performance Standards | | | | | ✓ | | | | | | | |
| Cl 15 | Performance Audit | Unlikely | Major | High | Strong | | | | | | | | ✓ |
| Cl 16 | Asset Management System | Unlikely | Major | High | Strong | | | | | | | | ✓ |
| Cl 17 | Reporting | Unlikely | Major | High | Strong | ✓ | | | | | | | |
| Cl 18 | Provision of Information | Unlikely | Major | High | Strong | | | | | | | | ✓ |
| Cl 19 | Publishing Information | Unlikely | Minor | Low | Strong | | ✓ | | | | | | |
| Cl 20 | Notices | Unlikely | Minor | Low | Strong | | | | | | | | ✓ |
| Cl 21 | Review of the Authority's Decisions | | | | | | ✓ | | | | | | |

## *1.2 Asset Management System Review Summary*

The asset management system was found to be satisfactory with a few issues requiring attention. These were Section 4.3 – Environmental Analysis, Section 7.5 & 7.6 – Asset Management Information System, Section 9.1 Contingency Planning and Section 10.2 Financial Planning (refer to Table 9 for specific detail).

As required by section 11.4.2 of the Audit Guidelines (August 2010) Table 2 summarises the auditor's assessment of both the process and policy definition rating and the performance rating for each key process in the licensees asset management system, using the scales described in Table 5 and Table 6 (refer Section 3.3 Asset Management Review Methodology). The rating was determined by the auditor's judgement based on the execution of the Audit Plan.

The process and policy and asset management system adequacy ratings are summarised below;

**Table 2: Asset Management System - Effectiveness Summary**

| Asset Management System | Asset Management Process And Policy Definition Adequacy Rating | Asset Management Performance Rating |
|---|---|---|
| 1. Asset planning | A | 1 |
| 2. Asset creation/ acquisition | A | 1 |
| 3. Asset disposal | A | 1 |
| 4. Environmental analysis | A | 1 |
| 5. Asset operations | A | 1 |
| 6. Asset maintenance | A | 1 |
| 7. Asset Management Information System | A | 2 |
| 8. Risk management | A | 1 |
| 9. Contingency planning | A | 2 |
| 10. Financial planning | A | 1 |
| 11. Capital expenditure planning | A | 1 |
| 12. Review of AMS | A | 1 |

The Audit Guidelines (August 2010 2009) require that auditors who have rated the adequacy of the process and policy definition process as C or D or the asset management performance as 3 or 4 also make recommendations to address the issue(s).

## 2. PERFORMANCE AUDIT

### *2.1 Performance Audit Scope*

This is the second audit of Perth Power Partnership's compliance with obligations relating to Generation Licence EGL8. As such, the scope of the audit for the period 1st July 2008 to 30th June 2010 is to:

- assess the license holders internal compliance systems (i.e. process, outcome and output compliance)
- assess the license holders compliance with its license (including integrity of reporting)
- measure performance over time

The previous Performance Audit covered the period 9 June 2006 to 30 June 2008.

This Performance Audit was conducted over the following period August to September 2010 and an overview methodology is outlined below;

- Initial approval to conduct audit obtained by ERA
- Preliminary Audit undertaken to assist with preparation of the Audit Plan
- Audit Plan preparation
- Submission of the Audit Plan to the ERA
- Audit Plan Approval
- Performance Audit conducted on site to execute Audit Plan
- Preparation of Audit Report

The following people were interviewed during the Performance Audit;

- Mark Jameson - Operation & Maintenance Supervisor
- Ken Ferguson - HSEQ Compliance Advisor
- Andrew Usher - Plant Engineer
- Lui Dinardo – Financial Controller
- John Hatton - Access Billing Manager, Western Power

A list of key documents and other information sources examined by the auditor during the Performance Audit is provided below;

- O&M Agreement
- Power Purchase Agreements
- Monthly Reports
- ERA Correspondence
- Compliance Reports
- Asset Management Plan
- Business Plans
- Lease Agreements
- Connection Agreement
- Annual Reports
- Incident Reports

Further detail is included in Appendix 1 of the report. In preparation the Performance Audit required 30 hours of Nicole Davies time.

## *2.2 Performance Audit Objective*

The objective of the performance audit, as defined by the Audit Guidelines, is to assess the effectiveness of measures taken by the licensee to meet obligations of the performance and quality standards referred to in the licence.

In addition to compliance requirements, a specific focus is to be taken on the systems and effectiveness of processes used to ensure compliance with the standards, outputs and outcomes required by the licence. The audit outcome is to identify areas of non-compliance and areas of compliance where improvement is required and recommend corrective action as necessary.

## *2.3 Performance Audit Methodology*

A risk assessment, assessment of control environment and allocation of audit priority was undertaken in accordance with the Audit Guidelines – Electricity, Gas and Water Licences (August 2010) on each element relating to Generation licensee's of the Electricity Compliance Reporting Manual (1 July 2010) issued by the Authority. However, as the audit period was the 1st July 2008 to 30th June 2010, the new Electricity Compliance and Reporting Manual (1 July 2010) was not applicable to the audit scope. As such, the Performance Audit was conducted against the 2008 Electricity and Compliance Reporting Manual (refer ERA website Archived Guidelines). For ease of comparison and future reference, the 2010 Electricity and Compliance Reporting criteria are noted in brackets within the table in Appendix 1.

The Performance Audit Methodology as prescribed in the Guidelines was detailed in the Audit Plan.

Table 3 defines the compliance ratings shown in section 1.1.

**Table 3: Operational/Performance Compliance Rating Scale**

| Compliance Status | Rating | Description of Compliance |
|---|---|---|
| Compliant | 5 | Compliant with no further action required to maintain compliance |
| Compliant | 4 | Compliant apart from minor or immaterial recommendations to improve the strength of internal controls top maintain compliance |
| Compliant | 3 | Compliant with major or material recommendations to improve the strength of internal controls top maintain compliance |
| Non-Compliant | 2 | Does not meet minimum requirements |
| Significantly Non-Compliant | 1 | Significant weaknesses and/or serious action required |
| Not Applicable | N/A | Determined that the compliance obligation does not apply to the licensee's business operations |
| Not Rated | N/R | No relevant activity took place during the audit period, therefore it is not possible to assess compliance |

In order to focus the audit effort and identify areas for testing and analysis a preliminary assessment of the risk and materiality of non-compliance with the Generation Licence was undertaken in accordance with the requirements of AS/NZS 31000 Risk Management and Appendix 2 of the Audit Guidelines. This assessment rating was reviewed during the audit process subject to the verification of control environment.

**Follow-Up from Previous Audit Findings**

A detailed assessment of the previous audit post implementation action plan was undertaken during the audit to assess effectiveness. A summary is provided in Table 4.

**Table 4 : 2008 Performance Audit Key Findings, Recommendation, Post Audit Plan & Progress**

| Ref | Licence Condition | Issue | Recommendation | Post-Audit Action Plan | Outcome |
|---|---|---|---|---|---|
| 82 | Generation Licence Condition 16.1 | 1) The ERA Licence details the organisations Generating Works as;<br><br>Two gas turbine and one steam turbine generators in a combined-cycle, cogeneration arrangement with a nominal 116MW rated plant capacity whose fuel source is primarily natural gas or LPG as a secondary fuel source<br><br>It is noted that the LPG gas system has been disabled and is no longer available to be used as a secondary source. Once formal approvals have been obtained it will be decommissioned and removed.<br><br>2) In addition, a post mortem outage report is undertaken by the organisation to identify opportunity for improvements for the next outage (Ref: Outage GT1B Minutes 23/04/08). It is noted that the findings in the report are not always acted upon and considerations could be given to utilising the EMPAC system to track requirements. | 1) Notify the ERA of the intention to remove the LPG Fuel System as an alternative fuel source<br><br>2) Utilise the work order system to ensure that requirements from outages are completed. | ACTION 1: ERA notified of the intention decommission and remove the LPG Fuel system as an alternative fuel source.<br><br>RESPONSIBILITY: J Lee<br><br>DATE: 1st December 2008<br><br>ACTION 2: Procedure KCP-02-02 "Maintenance Planning" modified to state that the work order system is to be used to ensure that requirements from outages are actioned for following outages. | Action 1 :Letter sent to ERA on 23/12/08 from J. Lee<br><br>Test: The letter has been sighted and discussions with the Secretariat confirmed adequacy of action response.<br><br>Status: ACTION CLOSED<br><br>Action 2: Review of Maintenance Planning Procedure KCP-02-02.<br><br>Test: The Procedure was reviewed and confirmation of item noted. Further, a review of Outage Post-Mortem 4th September 2009 and work orders reviewed confirmed this process has occurred during the audit period.<br><br>STATUS: ACTION CLOSED |
| 83 | Generation Licence Condition 16.2 | | | | |
| 103 | Generation Licence Condition 12.2 | | | | |
| 109 | Generation Licence Condition 17.1 | | | | |

| Ref | Licence Condition | Issue | Recommendation | Post-Audit Action Plan | Outcome |
|---|---|---|---|---|---|
| 86 | Generation Licence Condition 5.1 | The Risk Survey Reports by Marsh review the consequences of fire risks, natural perils, catastrophic failure, terrorism, etc. It does not consider the loss of natural gas supply specifically however the Business Continuity Plan (BCP) does consider this event, ranking the probability of total loss of gas supply as Low. Consideration could be given to reviewing this document in light of the Veranus Island incident as per discussions with the Asset Manager. | Review Business Continuity Document to reflect updated strategy for gas supply. | ACTION: Review Business Continuity Document to reflect updated strategy for gas supply.<br>RESPONSIBILITY: A Usher<br>DATE: 31 March 2009 | A review of the Business Continuity Plan to follow BCP Procedures laid down by international Power.<br>It is noted that there is no simple solution to obtain alternative supply of fuel should something happen to the DBNGP disrupting gas supplies. This will continue to remain on the organisations agenda until a viable alternative is found.<br>Test: Discussion with Management, addressed to within control parameters.<br>Status: ACTION REVIEW STATUS AT NEXT AUDIT |

| Ref | Licence Condition | Issue | Recommendation | Post-Audit Action Plan | Outcome |
|---|---|---|---|---|---|
| 105 | Generation Licence Condition 13.1 | With respect to the financial reports the following information is noted;<br>- The partnerships financial report does not comply with AASB124 Related Party Disclosure and AASB7 Financial Instruments Disclosure -31/12/07.<br>- The partnerships financial report does not comply with AASB119 Employee Benefits and AASB124 Related Party Disclosure – 31/12/06 | Convey ERA requirement to Financial Auditors and ensure compliance with relevant accounting standards as required by licence EGL8. | ACTION: Ensure Financial Auditors are aware of ERA requirements to ensure compliance with EGL8.<br>RESPONSIBILITY: Financial Controller<br>DATE: 31st December 2008 | KPMG have confirmed that from a measurement perspective the account comply with AASB. Choosing to not meet the disclosure requirement does not mean PPP does not comply with AASB. Compliance with this requirement has been confirmed. |

## *2.4 2010 Post Audit Implementation Plan*

As stipulated in section 11.9 of the Audit Guidelines (August 2010), the Audit Team notes that the Performance Audit Post Implementation Plan (Appendix 3) does not form part of the Audit Opinion. It is the responsibility of the licensee to ensure actions are undertaken as determined by Perth Power Partnership: Kwinana Cogeneration Plant.

**Table 5: Post Audit Implementation Plan**

| Ref | Audit Requirement | Issue | Recommendation | Post-Audit Action Plan |
|---|---|---|---|---|
| 85 | **Generation Licence Condition 4.1 - Electricity Industry Act section 17 (1)**<br>The licensee must pay the applicable fees in accordance with the Regulations.<br>A licensee must pay to the Authority the prescribed licence fee within one month after the day of grant or renewal of the licence and within one month after each anniversary of that day during the term of the licence.<br>Non Compliant [2] | Licence fees were paid 4 days after the date they were required to be paid by the licence.<br>The organisation is aware of the requirements for payment of licence fees annually.<br>As a result of the last audit an EMPAC work order was established to pay licence fees. The last date it was set for was the 1/7/10; however, the Licensee has amended the work order to be raised on 9/5/2011. This should ensure future compliance with this Licence Condition.<br>The ERA invoice was issued and paid within the organisations accounts system as promptly as allowed. The issue arises as system requires accounts prior to payment. In order to meet the deadline a payment would need to be authorised prior to receipt of the invoice. | 1. Monitoring of the Licence fees in the management meeting could be considered to ensure the payment is occurring on time. Investigation of approval to pay without the invoice could be sought. | ACTION:<br>a) Work order scheduled date brought forward to ensure more time available for payment to be actioned.<br>b) Purchasing procedure review undertaken with regard to making provision for regulatory licences to paid on due date regardless of invoice being received.<br>DATE:<br>a) Completed<br>b) 31st March 2011<br>RESPONSIBILITY: Financial Controller |

| Ref | Audit Requirement | Issue | Recommendation | Post-Audit Action Plan |
|---|---|---|---|---|
| 86 | Generation Licence Condition 5.1 | The Risk Survey Reports by Marsh review the consequences of fire risks, natural perils, catastrophic failure, terrorism, etc. It does not consider the loss of natural gas supply specifically however the Business Continuity Plan (BCP) does consider this event, ranking the probability of total loss of gas supply as Low. Consideration could be given to reviewing this document in light of the Veranus Island incident as per discussions with the Asset Manager | 2. Ensure the post audit implementation action plan from the 2008 audit is monitored for completion and effectiveness. | ACTION:<br><br>A review has been undertaken and the probability ranking of a loss of supply event has been increased to Medium as a result of the Varanus Island Incident however there is no simple solution to obtaining alternative supplies of gas fuel should something happen to upstream production facilities or the DBNG pipeline to CS10 at Kwinana.<br><br>At this time there is no alternative source of supply available or, perhaps more importantly, an alternative pipeline route to the plant for that supply. This issue will continue to remain on PPP's review agenda until such time as any viable alternatives become available and backup supplies can be arranged.<br><br>RESPONSIBILITY: Asset Manager<br><br>DATE: Ongoing |

# 3. ASSET MANAGEMENT SYSTEM EFFECTIVENESS REVIEW

## *3.1 AMS Review Scope*

The scope of the AMS review includes an assessment of adequacy and effectiveness of Perth Power Station: Kwinana Cogeneration Plant asset management system, by evaluating during the audit period 1st July 2008 to 20th June 2010 the following;

1. Asset Planning
2. Asset creation/acquisition
3. Asset disposal
4. Environmental analysis
5. Asset operations
6. Asset maintenance
7. Asset management information system
8. Risk management
9. Contingency planning
10. Financial planning
11. Capital expenditure planning
12. Review of asset management system

The review has been established as a requirement of the current Generating Licence issued by the Economic Regulation Authority to Perth Power Partnership: Kwinana Cogeneration Plant.

The asset management review follows the approved audit plan and uses;

- a risk based approach to auditing using the risk evaluation model set out in ISO31000:2009
- an overall effectiveness rating for an asset management process, based on a combination of the process and policy adequacy rating and the performance rating
- the format and content of the reviewer's report; and post- implementation plan as described in the Guidelines.

The following people were interviewed during the review;

Mark Jameson – Operations & Maintenance Supervisor
Ken Ferguson – HSEQ Compliance Advisor
Lui Dinardo – Financial Controller
Andrew Usher – Plant Engineer

The key documents and other information sources are detailed below and further in Appendix 2.

1. Kwinana Cogeneration Project Business Plan 2009 - 13
2. Kwinana Cogeneration Project Business Plan 2010 - 14
3. Kwinana Cogeneration Plant Monthly Report Sept 2008
4. Kwinana Cogeneration Plant Monthly Report June 2009
5. Kwinana Cogeneration Plant monthly Report February 2010
6. Verve Contract – Supply of Electricity Part 3 Section 8 in Power purchase Agreement
7. BP Contract – BP Energy and Services Agreement – Supply of Electricity and Steam Part 3 Section 8
8. Perth Power Partnership Meeting minutes – 10th March 2010
9. Perth Power Partnership Meeting minutes – 17th December 2009
10. Perth Power Partnership Meeting minutes – 13th May 2010
11. Whole of Plant Risk assessment for Kwinana Cogeneration Plant (spreadsheet)
12. Perth Power Partnership Annual Report 2009
13. Kwinana Cogeneration Plant Annual Report 2009
14. Kwinana Risk Survey Report Update 03.09 Version 1 (Marsh Report)
15. Kwinana Operations and Maintenance Agreement – Kwinana Power partnership
16. Australian Regional Review – Business Plan 2010 - 2014 Asset Overview – Perth Power Partnership
17. Kwinana Maintenance Prediction -2010
18. Customer Satisfaction Survey – SurveyMonkey December 2009 July 2010 responses
19. External complaint Form – KCP-07-04
20. Identifying Customer Requirements and Measuring Satisfaction Procedure - KCP-06-06
21. Fuel/Gas Management – KCP-03-02
22. EMPAC asset management & maintenance software
23. Toolbox meeting minutes
24. 2010 audit schedule
25. Preparation of annual business plan KCP-05-02
26. Review by Price Waterhouse Coopers: IPM Operations & Maintenance Kwinana Pty Ltd – Kwinana DSCR Review
27. Syndicated Project Facility Agreement 1995
28. Minutes of Management Meeting 25 May 2009
29. Minutes of Management Meeting 10 February 2010
30. 6th May 2010 Kwinana bearing No2 failure report update 8th June 2010
31. Purchase of Goods & Services Procedure KCP- 06-02
32. Plant or Operational Change Approval Procedure KCP-04-02
33. Quality Management Procedure KCP-04-01
34. Project Checklist Form KCP-04-09
35. Table of IPM Kwinana License Renewals / Reports Due / and Fees
36. Record of change to Legislative requirements matrix KCP-01-01
37. Minutes of Quarterly Compliance Meeting 3/4/09, 8/6/09,
38. Plant or Operational Change Approval Procedure KCP-04-02
39. Modification Request Form KCP0401
40. Disposal of Redundant Assets Procedure KCP-05-25
41. Waste Disposal Procedure KCP 01-08
42. Spare Parts Policy Procedure KCP-06-07
43. Design process Procedure KCP-04-04

44. IPM Kwinana Cogeneration Plant Business Continuity Plan KCP-08-14
45. Table of IPM Kwinana License Renewals / Reports Due / and Fees
46. Record of change to Legislative requirements matrix KCP-01-01
47. Document register – policies and procedures
48. Plant Operating Policy KCP – 03 & Procedure KCP-03-04
49. Plant Operating Logs and Records Procedure KCP-03-23
50. Training Procedure KCP-07-10
51. Black & Vetch (OEM) Operations & Maintenance Manuals
52. GE Operating Manuals
53. GE Technician Training manuals
54. Training records
55. Fuel/Gas Management – KCP-03-02
56. Weekly Toolbox Meeting minutes
57. Training matrix and reports
58. Work orders scheduled (PM & unplanned) W/E 19/07/10
59. Overdue PM work orders YTD 12/07/10
60. Non-conformance and Corrective and Preventative Action Procedure KCP-07-07
61. Abnormal Occurrence Report KCP-03-40
62. Foxboro DCS
63. IT Infrastructure Regular Maintenance Procedure KCP-05-20
64. LAN Administration Procedure KCP-05-15
65. Server Backup Management KCP-05-21
66. Training Procedure KCP-07-10
67. Logic modifications KCP-02-06
68. Corriolis RGF Calibration procedure KCP-02-10
69. Process Steam Flow Transmitter Calibration procedure KCP-02-11
70. DCS – Backing Up Workstation to Tape Procedures KCP-02-20/21/22
71. Site Security Procedure KCP-05-13
72. 2010 Internal Audit Schedule
73. SAI Triennial Audit Report 25/06/09
74. Register of Environmental aspects and Impacts 2009
75. Internal Management System Audits and Reviews procedure KCP-04-05
76. Preparation of Annual Business Plan KCP-05-02
77. KCP Business Continuity Plan 2010 – Draft
78. Testing of Stand-by and Emergency Plan KCP-03-12
79. Emergency Operation – Loss of Station AC Electrical Supplies and Backup Diesel Generator Operations KCP-03-13
80. Emergency Operation – Loss of Water Supply KCP-03-15
81. Emergency operation – Systems Islanding KCP-03-16
82. Emergency Operation – Loss of Natural Gas Supply KCP-03-17
83. Emergency Operations – Protection Operations KCP-03-18
84. Emergency Response Plan KCP-08-02
85. KIMA Manual – KIMA 039
86. Review by Price Waterhouse Coopers: IPM Operations & Maintenance Kwinana Pty Ltd – Kwinana DSCR Review
87. Syndicated Project Facility Agreement 1995
88. Kwinana 5 Year Maintenance Prediction -2010
89. Kwinana Cogeneration Plant 5 Year Capital Spares Purchases – 2010
90. Delegation of Authority for Assets and Business CEOS FPM/FP01
91. GV Instructions 2010 Master.docx (2010 – 2021)
92. Kwinana GV 2010 Base Case (2010 – 2021)
93. SAI Triennial Audit Report 25/06/09

The review was conducted in conjunction with the Performance Audit during August 2010 and included one day preliminary site audit, desktop review, one day audit to execute audit plan and interview sessions and report writing. In total the audit required 72 hours of Premmck Management Service's (Neema Premji and Brian McKenry) time. This was the first time Premmck Management Services have carried out a compliance audit on this site.

## *3.2 Objective of the Asset Management System Review*

The objective of the review is to examine the effectiveness of the processes used by Perth Power Partnership: Kwinana Cogeneration Plant to deliver asset management, the information systems supporting asset management activities and the data and knowledge used to make decisions about asset management. These elements were examined from a life cycle perspective i.e. planning, construction, operation, maintenance, renewal, replacement and disposal using the guidelines developed by the Economic Regulation Authority.

## *3.3 Methodology for Asset Management System Review*

The audit methodology detailed in the Audit Guidelines – Electricity, Gas and Water Licences (August 2010) was used in the execution of the Asset Management System Review and is detailed in the Audit Plan.

**Asset Management System Effectiveness Rating**

The Audit Guidelines (section 11.4.2) states that the asset management review report must provide a table that summarises the auditor's assessment of both the process and policy definition rating and the performance rating for each key process in the licensee's asset management system using the scales described in Table 5 and Table 6. It is left to the judgement of the auditor to determine the most appropriate rating for each asset management process.

**Table 6: Asset management process and policy definition adequacy ratings**

| Rating | Description | Criteria |
|---|---|---|
| A | Adequately defined | • Processes and policies are documented.<br>• Processes and policies adequately document the required performance of the assets.<br>• Processes and policies are subject to regular reviews, and updated where necessary<br>• The asset management information system(s) are adequate in relation to the assets that are being managed. |
| B | Requires some improvement | • Process and policy documentation requires improvement.<br>• Processes and policies do not adequately document the required performance of the assets.<br>• Reviews of processes and policies are not conducted regularly enough.<br>• The asset management information system(s) require minor improvements (taking into consideration the assets that are being managed). |
| C | Requires significant improvement | • Process and policy documentation is incomplete or requires significant improvement.<br>• Processes and policies do not document the required performance of the assets.<br>• Processes and policies are significantly out of date.<br>• The asset management information system(s) require significant improvements (taking into consideration the assets that are being managed). |
| D | Inadequate | • Processes and policies are not documented.<br>• The asset management information system(s) is not fit for purpose (taking into consideration the assets that are being managed). |

**Table 7: Asset management performance ratings**

| Rating | Description | Criteria |
|---|---|---|
| 1 | Performing effectively | • The performance of the process meets or exceeds the required levels of performance.<br>• Process effectiveness is regularly assessed and corrective action taken where necessary. |
| 2 | Opportunity for improvement | • The performance of the process requires some improvement to meet the required level.<br>• Process effectiveness reviews are not performed regularly enough.<br>• Process improvement opportunities are not actioned. |
| 3 | Corrective action required | • The performance of the process requires significant improvement to meet the required level.<br>• Process effectiveness reviews are performed irregularly, or not at all.<br>• Process improvement opportunities are not actioned. |
| 4 | Serious action required | • Process is not performed, or the performance is so poor that the process is considered to be ineffective. |

### Deviation from the Audit Plan

There were several changes made to the risk assessment ratings conducted for the Audit Plan for the Performance Audit and the Asset Management System Review. The revisions only involve the adequacy of existing controls. All deviations from the Audit Plan are detailed within Appendix 1 and 2 respectively.

## Table 8: Previous Asset Management Review Key Findings, Recommendation, Post Audit Plan & Progress

| Ref | Audit Requirement | Issue | Recommendation | Post-Audit Action Plan | Outcome |
|---|---|---|---|---|---|
| 8.4 | The probability and consequence of asset failure are regularly assessed | The probability and consequences of asset failures are assessed based on knowledge of the plant, manufacturers' data, good industry practice and importance of the asset under consideration. Maintenance plans, policies and procedures are implemented in EMPAC system to mitigate against the consequences of failures. The plant has been certified compliant with Occupational Health and Safety Management Systems AS 4801, Environmental Management Systems ISO 14001 and Quality Management Systems ISO 9001. While the probability and consequences of asset failures has been assessed in the past, there does not appear to be regular assessment reviews. | The probability and consequences of asset failure should be regularly reviewed to confirm appropriateness and effectiveness of maintenance systems. | ACTION: Develop procedure/process for review of risk assessment for asset failures that is aligned with the plant modification process.<br><br>RESPONSIBILITY: Plant Engineer<br>DATE: 30th Nov 2008 | KCP Procedures KCP-04-01 and KCP-04-02 amended to show that the Risk Survey Report is conducted biennially and that any Plant Modifications are reviewed against this report at that time as well as being evaluated on their own as each Mod Request is considered for approval as per KCP-04-02. |

## Table 9: Recommendations and Post – Audit Action Plans

| Ref | Audit Requirement | Issue | Recommendation | Post-Audit Action Plan |
|---|---|---|---|---|
| 4.3 | Environmental Analysis - Compliance with statutory and regulatory requirements<br>Review Priority – 2<br>Effectiveness Rating – B3 | There has been some disagreement over the inclusion of the waste water discharge in the Licensee's Environmental Licence or BP's Environmental Licence.<br>Currently, the intention of the DEC is to include it in PPP's Licence. IPL may challenge this decision. The Environmental Licence for the site is essentially its licence to operate within the environmental parameters defined, if the disagreement is not readily resolved the cessation of discharge could have an impact on the operational ability of the plant. | Recommendation 1: Resolution of the issue is required to ensure the future discharge of waste water in accordance with licence requirements. | ACTION:<br>PPP are in discussion with DEC and BP refinery to sort out this ongoing issue under the stipulations of the long term agreements and take measures to comply with the regulatory requirements set down by DEC.<br>PPP is confident that the issue will be resolved and there would be no disruption to the operation of the plant.<br>RESPONSIBILITY: Asset Manager<br>DATE: Ongoing |
| 7.5 | Asset Management Information System – Data backup procedures appear adequate<br>Review Priority - 4<br>Effectiveness Rating – A2 | The DCS backup tapes could not be located in the library as per procedure. Also all doors between DCS server and library were open, including fire doors | Recommendation 2: The storage of DCS back-up tapes requires review; although the library is remote to the DCS servers a review of fire safety processes (i.e. fire doors left open) may be appropriate. | ACTION: Procedure to be amended to indicate onsite storage as the Fire Proof Safe located in the Office Amenities room and also off site storage through the current service provider.<br>RESPONSIBILITY: Plant Engineer |

| Ref | Audit Requirement | Issue | Recommendation | Post-Audit Action Plan |
|---|---|---|---|---|
| | | | | DATE: 31st December 2010 |
| 7.6 | Asset Management Information System – Key computations related to licensee performance reporting are materially accurate<br>Review Priority - 4<br>Effectiveness Rating – A2 | At the time of the audit concerns were raised about where Western Power is monitoring ambient temperatures utilised to calculate KCP's maximum capability | Recommendation 3: The issue with the ambient temperature monitoring should be resolved with Western Power to ensure KCP capability is not adversely affected. | ACTION: Select and agree on a suitable temperature reference site with System Management/IMO for the purpose of calculating KCP's maximum capability.<br>RESPONSIBILITY: Plant Engineer<br>DATE: 31st December 2010 |
| 9.1 | Contingency Planning – Contingency plans are documented, understood and tested to confirm their operating ability and to cover higher risks<br>Review Priority – 4<br>Effectiveness Rating – A2 | Currently KCP is in the process of reviewing its draft Business Continuity Plan. It requires be finalising and testing as prescribed within the plan. | Recommendation 4: KCP Business Continuity Plan 2010 – Draft to be finalised and implemented accordingly. | ACTION:<br>a) BCP to move from draft to approved and migrated into Lotus Notes procedures database.<br>b) Testing of BCP is to be conducted by IPR/Marsh and was scheduled for 2010.<br>RESPONSIBILITY: Asset Manager<br>DATE:<br>a) 31st October 2010<br>b) 31st December 2010 |

| Ref | Audit Requirement | Issue | Recommendation | Post-Audit Action Plan |
|---|---|---|---|---|
| 10.2 | Financial Planning – The financial plan identifies the source of funds for capital expenditure and recurrent costs<br><br>Review Priority – 5<br><br>Effectiveness Rating – A2 | The Syndicated Project Facility Agreement provided for and continues to provide for a secure line of credit, as a viable source of funds until July 2011. The use of this source of credit facility was evident in the purchase of a new rotor and refurbishment of the failure rotor of Bearing No. 2. | Recommendation 5: Perth Power Partnership must investigate financial credit line instrumentalities and implement accordingly such that it can be used as an alternate source of funds upon the expiration of the current agreement. | ACTION: a) Review options for credit facility and make recommendation for approval prior to existing arrangement expiration.<br><br>RESPONSIBILITY: Financial Controller<br><br>DATE: 31st May 2011 |

### *3.4 2010 Post Audit Implementation Plan*

As stipulated in section 11.9 of the Audit Guidelines (August 2010), the Audit Team notes that the Asset Management Review Post Implementation Plan does not form part of the Audit Opinion. It is the responsibility of the licensee to ensure actions are undertaken as determined by Perth Power Partnership: Kwinana Cogeneration Plant.

## 4. FOLLOW UP AUDIT PROCESS

This is the second Performance Audit and Asset Management Review conducted since the issue of the licence. Review of actions taken in response to recommendations will form part of subsequent audit plans.

The license proposes that Perth Power Partnership reports progress on the Post Audit Implementation Plan to the ERA in the annual Compliance Reports.

# APPENDIX 1

# PERTH POWER PARTNERSHIP: KWINANA COGENERATION PLANT
# PERFORMANCE AUDIT SEPTEMBER 2010

| Compliance Reporting Manual Ref | Licence Condition Requirement | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|
| **GENERATION LICENCE CONDITION 1 - DEFINITIONS** | | | | |
| - | Determined to be not applicable to the audit scope. | Not Applicable<br>[NA] | NOT APPLICABLE | |
| **GENERATION LICENCE CONDITION 2 - GRANT OF LICENCE** | | | | |
| - | **Generation Licence condition 2.1- *Electricity Industry Act 2004***<br>The licensee is granted a licence for the licence area to construct and operate generating works or operate existing generating works in accordance with the terms and conditions of this licence. | Compliant<br>[5] | ▪ Perth Power Partnership Pty Ltd Generation Licence – EGL8 – Schedule 1<br>▪ Notice – Amendment to Electricity Generation Licence 8 (29 January 2009)<br>▪ Discussions with Site Management<br>▪ Discussions with System Management<br>▪ Application for Generation Licence (22/12/2005) | The licensee has operated the generating works in accordance with the licence EGL8.<br>The installed capacity of the Unit, as defined by EGL8, is 116 MW. It is noted that operationally, under certain conditions, the plant has a capability of achieving a greater output of up to 133MW. This is in response to System Managements requirements. |
| | **Risk Assessment** | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood: Unlikely<br>Consequence: Minor<br>Inherent Risk: Low | 5 | Nil | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|---|
| | Adequacy of Controls | Strong | | | |
| **GENERATION LICENCE CONDITION 3 - TERM** | | | | | |
| - | **Generation Licence Condition 3.1 - *Electricity Industry Act 2004***<br>The licence commences on the commencement date and continues until the earlier of;<br>(a) the cancellation of the licence pursuant to clause 7 of this licence;<br>(b) the surrender of the licence pursuant to clause 8 of this licence; or<br>(c) the expiry date. | | Not Rated<br>[NR] | ▪ Compliance Reports during audit period 1st July 2008 – 30th June 2010<br>▪ Interview with Operation & Maintenance Supervisor | No issues with regards to surrender or cancellation of the licence were raised during the audit period. As such assessment of compliance with clause cannot be undertaken. |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood<br>Consequence<br>Inherent Risk<br>Adequacy of Controls | Unlikely<br>Moderate<br>Medium<br>Strong | 4 | Nil | |
| **GENERATION LICENCE CONDITION 4 - FEES** | | | | | |
| 85<br>[TYPE NR] | **Generation Licence Condition 4.1 - Electricity Industry Act section 17 (1)**<br>The licensee must pay the applicable fees in accordance with the Regulations.<br>A licensee must pay to the Authority the | | Non Compliant<br>[2] | ▪ Payment of fees before the 9th July each year<br>▪ Discussion with Asset Engineer<br>▪ Review of payment/pending | Licence fees were paid as follows;<br>- ERA Invoice ERA182 (date of issue 24 June 2010) Approved for payment. (Payment ref #566) – Paid 7th July 2010<br>Received by the ERA on the 13th July 2010 |

| Compliance Reporting Manual Ref | Licence Condition Requirement | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|
| | prescribed licence fee within one month after the day of grant or renewal of the licence and within one month after each anniversary of that day during the term of the licence. | | invoice process<br>▪ Discussions with The Secretariat<br>▪ EMPAC Work Order (File Number 36) | - ERA Invoice ERA123 (date of issue 16 June 2009). Payment ref K013324 (#8094 & #530525) – Paid 9th July 2009<br>Received by the ERA on the 13th July 2009<br>The organisation is aware of the requirements for payment of licence fees annually.<br>As a result of the last audit an EMPAC work order was established to pay licence fees. The last date it was set for was the 1/7/10, however, the Licensee has amended the work order to be raised on 9/5/2011. This should ensure future compliance with this Licence Condition.<br>The ERA invoice was issued and paid within the organisations accounts system as promptly as allowed. The issue arises as system requires accounts prior to payment. In order to meet the deadline a payment would need to be authorised prior to receipt of the invoice. |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** |
| | Likelihood<br>Consequence<br>Inherent Risk | Unlikely<br>Minor<br>Low<br>Moderate | 5 | 1. Monitoring of the Licence fees in the management meeting could be considered to ensure the payment is occurring on time. Investigation of approval to pay without the invoice could be sought.<br>*Note: The Adequacy of Controls measure has been revised from Strong to Moderate due to audit finding.* |

| Compliance Reporting Manual Ref | Licence Condition Requirement | | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|---|
| | Adequacy of Controls | | | | |
| **GENERATION LICENCE CONDITION 5 – COMPLIANCE** | | | | | |
| - | Subject to any modifications or exemptions granted pursuant to the Act, the licensee must comply with any applicable legislation. | | Compliant<br>[4] | ▪ Good corporate citizenship<br>▪ Regulatory controls<br>▪ Legal advisors<br>▪ Discussions with Plant Engineer | Compliance with applicable legislation referred to the in Generation Licence forms part of this audit. Exceptions are noted in the executive summary. |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood<br>Consequence<br>Inherent Risk<br>Adequacy of Controls | Unlikely<br>Moderate<br>Medium<br>Moderate | 4 | Note: Refer to corrective actions detailed in the summary Table 9 – Asset Management Review. | |
| 86<br>[TYPE NR] | A licensee must take reasonable steps to minimise the extent or duration of any interruption, suspension or restriction of the supply of electricity due to an accident, emergency, potential danger or other unavoidable cause. | | Compliant<br>[5] | ▪ Discussion with Operation & Maintenance Supervisor<br>▪ Operations & Maintenance Agreement Section 6.3(i)<br>▪ Operational Procedures<br>▪ Incident Management<br>▪ Emergency Procedures<br>▪ O&M availability criteria; | Operations & Maintenance Agreement Section 6.3(i) adequately addresses requirements to maximise electricity generation; high availability targets are set for IPM/PPP safety and environmental performance requirements are specified.<br>Compliance with the Agreement is monitored by Management. |

| Compliance Reporting Manual Ref | Licence Condition Requirement | | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|---|
| | | | | financial penalties<br>▪ Secure site<br>▪ Effective Health and Safety Management Plans<br>▪ Safety Compliance Audits | |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood<br>Consequence<br>Inherent Risk<br>Adequacy of Controls | Unlikely<br>Moderate<br>Medium<br>Strong | 4 | Nil | |
| 87<br>[TYPE 2] | **Generation Licence Condition 5.1- Electricity Industry Act section 41 (6)**<br>A licensee must pay the costs of taking an interest in land or an easement over land. | | Compliant<br>[5] | ▪ Site Lease between BP Refinery (Kwinana) Pty Ltd and Kwinana Power Partnership dated 14th March 1995.<br>▪ 2.1814 ha Drawing 3315-24-05<br>▪ ESA (Energy Services Agreement) between Lessor and Lessee dated 7th March 1995 | The Kwinana site is leased from BP until 2023. This timeframe is aligned with all other relevant contract documentation. It is noted that the ERA Licence is valid until 2036. |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood<br>Consequence | Unlikely<br>Minor | 5 | Nil | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|---|
| | Inherent Risk<br>Adequacy of Controls | Low<br>Strong | | | |
| Electricity Industry Metering Code | | | | | |
| 309<br>[TYPE 2]<br>(326) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 3.5(6)**<br>A network operator may only impose a charge for providing, installing, operating or maintaining a metering installation in accordance with the applicable service level agreement between it and the user. Western Power Corporation (WPC) is the Network Operator for Kwinana Cogeneration Plant/PPP | | Not Applicable<br>[NA] | Not Applicable as Perth Power Partnership is not the Network Operator. Reference to Electricity Industry Metering Code. | |
| 319<br>[TYPE 2]<br>(336) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 3.11(3)**<br>A Code participant who becomes aware of an outage or malfunction of a metering installation must advise the network operator as soon as practicable. | | Compliant<br>[5] | ▪ SCADA DATA<br>▪ Management Meeting<br>▪ Discussion with Plant Engineers<br>▪ Discussion with Western Power | Although, The Electricity Metering Code is not applicable to the scope of the audit this item is relevant for consideration as the Licensee still has an obligation to report a malfunction of a metering installation. There are systems established and adequate monitoring programs to identify a malfunction should it not be identified by the Network Operator in the first instance. |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood | Unlikely | 4 | Nil | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|---|
| | Consequence<br>Inherent Risk<br>Adequacy of Controls | Moderate<br>Medium<br>Strong | | *Note: This was rated as Not Applicable in the Audit Plan as the Licensee is not directly response for the metering installations. A request from the Secretariat to consider the requirement was made during the audit process.* | |
| 331<br>[TYPE 2]<br>(348) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 3.16(5)**<br>A network operator or a user may require the other to negotiate and enter into a written service level agreement in respect of the matters in the metrology procedure dealt with under clause 3.16(4) of the Code. | | Not Applicable<br>[NA] | WPN is responsible for metering and this further defined within the Connection Agreement. | |
| 342<br>[TYPE 2]<br>(359) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 3.27**<br>A person must not install a metering installation on a network unless the person is the network operator or a registered metering installation provider for the network operator doing the type of work authorised by its registration. | | Not Applicable<br>[NA] | Tariff meters installed at the Kwinana Cogeneration Plant are the responsibility of Western Power. | |
| 349<br>[TYPE NR]<br>(366) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 4.4(1)**<br>A network operator and affected Code participants must liaise together to determine the most appropriate way to resolve a discrepancy between energy data held in a | | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|
| | metering installation and data held in the metering database. | | | |
| 350<br>[TYPE NR]<br>(367) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 4.5(1)**<br>A Code participant must not knowingly permit the registry to be materially inaccurate. | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| 351<br>[TYPE 2]<br>(368) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 4.5(2)**<br>If a Code participant (other than a network operator) becomes aware of a change to or an inaccuracy in an item of standing data in the registry, then it must notify the network operator and provide details of the change or inaccuracy within the timeframes prescribed. | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| 363<br>[TYPE NR]<br>(380) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.4(2)**<br>A user must, when reasonably requested by a network operator, use reasonable endeavours to assist the network operator to comply with the network operator's obligation under clause 5.4(1). | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| 365<br>[TYPE 2] | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.5(3)** | Not Applicable | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|
| (382) | A user must not impose any charge for the provision of the data under this Code unless it is permitted to do so under another enactment. | [NA] | | |
| 376<br>[TYPE 2]<br><br>(393) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.16**<br>A user that collects or receives energy data from a metering installation must provide the network operator with the energy data (in accordance with the communication rules) within the timeframes prescribed. | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| 377<br>[TYPE 2]<br><br>(394) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.17(1)**<br>A user must provide standing data and validated (and where necessary substituted or estimated) energy data to the user's customer, to which that information relates, where the user is required by an enactment or an agreement to do so for billing purposes or for the purpose of providing metering services to the customer. | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| 377<br>[TYPE 2] | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.18**<br>A user that collects or receives information | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|
| (395) | regarding a change in the energisation status of a metering point must provide the network operator with the prescribed information, including the stated attributes, within the timeframes prescribed. | | | |
| 379<br>[TYPE NR]<br>(396) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.19(1)**<br>A user must, when requested by the network operator acting in accordance with good electricity industry practice, use reasonable endeavours to collect information from customers, if any, that assists the network operator in meeting its obligations described in the Code and elsewhere. | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| 380<br>[TYPE NR]<br>(397) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.19(2)**<br>A user must, to the extent that it is able, collect and maintain a record of the address, site and customer attributes, prescribed in relation to the site of each connection point, with which the user is associated. | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| 381<br>[TYPE 2]<br>(398) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.19(3)**<br>A user must, after becoming aware of any change in a site's prescribed attributes, notify the network operator of the change within | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|
| | the timeframes prescribed. | | | |
| 382<br>[TYPE 2]<br>(399) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.19(4)**<br>A user that becomes aware that there is a sensitive load at a customer's site must immediately notify the network operator's Network Operations Control Centre of the fact. | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| 384<br>[TYPE NR]<br>(401) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.19(6)**<br>A user must use reasonable endeavours to ensure that it does notify the network operator of a change in an attribute that results from the provision of standing data by the network operator to the user. | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| 390<br>[TYPE 2]<br>(407) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.21(5)**<br>A Code participant must not request a test or audit unless the Code participant is a user and the test or audit relates to a time or times at which the user was the current user or the Code participant is the IMO. | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| 391<br>[TYPE 2] | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.21(6)** | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|
| (408) | A Code participant must not make a test or audit request that is inconsistent with any access arrangement or agreement. | | | |
| 426<br>[TYPE 2]<br>(409) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 5.27**<br>Upon request, a current user must provide the network operator with customer attribute information that it reasonably believes are missing or incorrect within the timeframes prescribed. | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| 433<br>[TYPE 2]<br>(416) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 6.1(2)**<br>A user must, in relation to a network on which it has an access contract, comply with the rules, procedures, agreements and criteria prescribed. | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| 435<br>[TYPE NR]<br>(418) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 7.2(1)**<br>Code participants must use reasonable endeavours to ensure that they can send and receive a notice by post, facsimile and electronic communication and must notify the network operator of a telephone number for voice communication in connection with the Code. | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|
| 437<br>[TYPE 2]<br>(420) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 7.2(4)**<br>A Code participant must notify its contact details to a network operator with whom it has entered into an access contract within 3 business days after the network operator's request. | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| 438<br>[TYPE 2]<br>(421) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 7.2(5)**<br>A Code participant must notify any affected network operator of any change to the contact details it notified to the network operator at least 3 business days before the change takes effect. | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| 439<br>[TYPE 2]<br>(422) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 7.5**<br>A Code participant must not disclose, or permit the disclosure of, confidential information provided to it under or in connection with the Code and may only use or reproduce confidential information for the purpose for which it was disclosed or another purpose contemplated by the Code. | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| 440<br>[TYPE 2] | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 7.6(1)** | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|
| (423) | A Code participant must disclose or permit the disclosure of confidential information that is required to be disclosed by the Code. | | | |
| 441<br>[TYPE 2]<br>(424) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 8.1(1)**<br>Representatives of disputing parties must meet within 5 business days after a notice given by a disputing party to the other disputing parties and attempt to resolve the dispute under or in connection with the Electricity Industry Metering Code by negotiations in good faith. | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| 425<br>[TYPE NR]<br>(442) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 8.1(2)**<br>If a dispute is not resolved within 10 business days after the dispute is referred to representative negotiations, the disputing parties must refer the dispute to a senior management officer of each disputing party who must meet and attempt to resolve the dispute by negotiations in good faith. | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| 426<br>[TYPE NR]<br>(443) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 8.1(3)**<br>If the dispute is not resolved within 10 business days after the dispute is referred to senior management negotiations, the | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|
| | disputing parties must refer the dispute to the senior executive officer of each disputing party who must meet and attempt to resolve the dispute by negotiations in good faith. | | | |
| 427<br>[TYPE 2]<br><br>(444) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 8.1(4)**<br>If the dispute is resolved by representative negotiations, senior management negotiations or CEO negotiations, the disputing parties must prepare a written and signed record of the resolution and adhere to the resolution. | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| 428<br>[TYPE NR]<br><br>(445) | **Generation Licence Condition 5.1 - Electricity Industry Metering Code clause 8.3(2)**<br>The disputing parties must at all times conduct themselves in a manner which is directed towards achieving the objective of dispute resolution with as little formality and technicality and with as much expedition as the requirements of Part 8 of the Code and a proper hearing and determination of the dispute, permit | Not Applicable<br>[NA] | Managed via contracts with Verve. WPN and System Management have direct control of metering. | |
| - | **Generation Licence Condition 5.1 - Review of Government Gazette Amendments**<br>▪ GG54 Electricity Industry Act 2004.p1088. 03 April 2009 | Compliant<br>[5] | ▪ Discussion with Plant Manager<br>▪ Corporate requirements in relation to compliance and | Perth Power Partnership utilise legal counsel and keep abreast of legal changes through this process as well as through communications received from the |

| Compliance Reporting Manual Ref | Licence Condition Requirement | | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|---|
| | ▪ GG101 Electricity Industry Act 2004.p2135. 16-Jun-2006 | | | reputation | Authority. |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood | Unlikely | 4 | Nil | |
| | Consequence | Moderate | | | |
| | Inherent Risk | Medium | | | |
| | Adequacy of Controls | Strong | | | |
| - | **Generation Licence condition 5.2**<br>Subject to the provisions of any applicable legislation, the Authority may direct the Licensee in writing to do any measure necessary to:<br>(a) correct the breach of any applicable legislation; or<br>(b) prevent the breach of any applicable legislation occurring again,<br>and specify a time limit by which such action must be taken | | Not Rated<br>[NR] | ▪ Discussion with Plant Engineer | During the audit scope the Authority has not required the licensee to correct the breach of any applicable legislation; or prevent the breach of any applicable legislation occurring again. As such assessment of compliance with clause cannot be undertaken. |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood | Unlikely | 4 | Nil | |
| | Consequence | Moderate | | | |
| | Inherent Risk | Medium | | | |
| | Adequacy of Controls | Strong | | | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|
| **GENERATION LICENCE CONDITION 6 - TRANSFER OF LICENCE** | | | | |
| | **Generation Licence condition 6.1 - Electricity Industry Act section 18 -Transfer of a licence**<br>This licence may be transferred only in accordance with the Act. | Not Applicable<br>[NA] | ▪ Discussion with Operation & Maintenance Supervisor | No transfer of licence undertaken during the audit period. As such assessment of compliance with clause cannot be undertaken. |
| **GENERATION LICENCE CONDITION 7 - CANCELLATION OF LICENCE** | | | | |
| | **Generation Licence condition 7.1 - Electricity Industry Act section 35 -Cancellation of a licence**<br>This *licence* may be cancelled only in accordance with the *Act*. | Not Applicable<br>[NA] | Determined not to be applicable to audit | |
| **GENERATION LICENCE CONDITION 8 - SURRENDER OF LICENCE** | | | | |
| - | **Generation Licence condition 8.1 - Electricity Industry Act 2004 (Schedule 1 - provision l)**<br>The *licensee* may surrender the *licence* at any time by written *notice* to the *Authority*. | Not Applicable<br>[NA] | Determined not to be applicable to audit | |
| - | **Generation Licence condition 8.2**<br>The surrender of the licence will take effect on the day that the Authority publishes a notice of the surrender in the Gazette. | Not Applicable<br>[NA] | Determined not to be applicable to audit | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|
| - | **Generation Licence condition 8.3**<br>The licensee will not be entitled to a refund of any fees by the Authority. | Not Applicable<br>[NA] | Determined not to be applicable to audit | |
| **GENERATION LICENCE CONDITION 9 - RENEWAL OF LICENCE** | | | | |
| - | **Generation Licence condition 9.1**<br>This licence may be renewed only in accordance with the Act. | Not Applicable<br>[NA] | Determined not to be applicable to audit | |
| **GENERATION LICENCE CONDITION 10 - AMNENDMENT OF LICENCE ON APPLICATION OF THE LICENSEE** | | | | |
| - | **Generation Licence condition 10.1**<br>The licensee may apply to the Authority to amend the licence in accordance with the Act. | Not Applicable<br>[NA] | Determined not to be applicable to audit. | |
| **GENERATION LICENCE CONDITION 11 - AMENDMENT OF LICENCE BY THE AUTHORITY** | | | | |
| | **Generation Licence condition 11.1**<br>Subject to any applicable legislation, the Authority may amend the licence at any time in accordance with this clause | Compliant<br>[5] | ▪ Discussions with Operation & Maintenance Supervisor<br>▪ GG54 p1088 3/4/09 | Changing the definition of customer to be consistent with the definition in the Electricity Industry Act 2004<br>Organisation was aware of changes and relevant documentation was reviewed on file. |
| | **Risk Assessment** | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood: Unlikely | 4 | Nil | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|---|
| | Consequence<br>Inherent Risk<br>Adequacy of Controls | Moderate<br>Medium<br>Strong | | | |
| | **Generation Licence condition 11.2**<br>Before amending the licence under clause 11.1, the Authority must:<br>(a) provide the licensee with written notice of the proposed amendments under consideration by the Authority;<br>(b) allow 15 business days for the licensee to make submissions on the proposed amendments; and<br>(c) take into consideration those submissions. | | Compliant<br>[5] | ▪ Discussions with Operation & Maintenance Supervisor<br>▪ Decision on Amendment to Customer Definition - Electricity Licences (29/01/09) | Adequate review time was provided for in the amendment of the licence condition. Compliance with Licence Condition 11.2 is noted. |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood<br>Consequence<br>Inherent Risk<br>Adequacy of Controls | Unlikely<br>Moderate<br>Medium<br>Strong | 4 | Nil | |
| | **Generation Licence condition 11.3**<br>This clause also applies to the substitution of the existing licence. | | Not Applicable<br>[NA] | Determined not to be applicable to audit | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|
| | **Generation Licence condition 11.4**<br>For avoidance of doubt, the licensee will not have to pay an associated application fee or licence fee for the purpose of clause 11.1. | Not Applicable<br>[NA] | Determined not to be applicable to audit | |
| **GENERATION LICENCE CONDITION 12 - EXPANSION OF GENERATING WORKS** | | | | |
| | **Generation Licence condition 12.1**<br>The licensee may expand or reduce the generating works if the relevant expansion or reduction is provided for in the asset management system. | Compliant<br>[5] | ▪ O&M Agreement<br>▪ Business Plan<br>▪ Asset Management Planning Process<br>▪ Annual Compliance Reports to the ERA due 31st August | There has been no expansion or reduction in generation works during the audit period. The last audit identified the need to communicate with the ERA the intention to remove the decommissioned LPG Fuel Plant.<br><br>As yet the LPG fuels plant has not been moved and it is understood that the licence will be reviewed by the ERA in their next round of licence revisions. |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** |
| | Likelihood: Unlikely<br>Consequence: Major<br>Inherent Risk: High<br>Adequacy of Controls: Strong | | 2 | Nil |
| 103 | **Generation Licence condition 12.2 -** | Not Rated | ▪ O&M Agreement Clause | In accordance with the assessment of |

| Compliance Reporting Manual Ref | Licence Condition Requirement | | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|---|
| [TYPE 2] | **Electricity Industry Act section 11**<br>A licensee must amend the asset management system before an expansion or reduction in generating works, distribution systems and transmission systems and notify the Authority in the manner prescribed, if the expansion or reduction is not provided for in the asset management system | | [NR] | ▪ Business Plan<br>▪ Asset Management Planning Process<br>▪ Annual Compliance Reports to the ERA due 31st August | Licence Condition 12.1 above there has been no requirement o amend the asset management system. As such there has been no requirement to notify the ERA and compliance with this requirement has not been assessed. |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood<br>Consequence<br>Inherent Risk<br>Adequacy of Controls | Unlikely<br>Minor<br>Low<br>Strong | 5 | Nil | |
| 104<br>[TYPE 2] | **Generation Licence condition 12.3 - Electricity Industry Act section 11**<br>A licensee must not expand the generating works, distribution systems or transmission systems outside the licence area. | | Not Rated<br>[NR] | There has been no expansion or reduction outside the licence area during the audit period. As such assessment of compliance with this clause has not been made. | |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood<br>Consequence<br>Inherent Risk<br>Adequacy of Controls | Unlikely<br>Minor<br>Low<br>Strong | 5 | Nil | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|---|
| - | **Generation Licence condition 12.4**<br>The licensee must pay any applicable fees in accordance with the Regulations. | | Not Rated<br>[NR] | There has no requirement to pay fees in accordance with the Regulations. As such assessment of compliance with this clause has not been made. | |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood | Unlikely | 5 | Nil | |
| | Consequence | Minor | | | |
| | Inherent Risk | Low | | | |
| | Adequacy of Controls | Strong | | | |
| **GENERATION LICENCE CONDITION 13 - ACCOUNTING RECORDS** | | | | | |
| 105<br>[TYPE 2] | **Generation Licence condition 13.1 - Electricity Industry Act section 11**<br>The licensee and any related body corporate must maintain accounting records that comply with the Australian Accounting Standards Board Standards or equivalent International Accounting Standards. | | Compliant<br>[5] | ▪ Discussion with Financial Controller<br>▪ Accounting process review<br>▪ International Power Annual Reports to December 31st 2008 & December 31st 2009<br>▪ Monthly Reports review<br>▪ Review of Financial Audits<br>▪ Kwinana Cogeneration Plant Annual Report 2009<br>▪ PPP Annual Financial Audit Report 31 December 2008<br>▪ PPP Annual Financial Audit | The independent auditors of the Financial Report (KPMG) contained within the International Power Annual Reports for 2008 and 2009 have included a statement of compliance with IFRS (International Financial Reporting Standards) and the Companies Act 2006 for "The Group", of which Kwinana Cogeneration Plant is a constituent.<br>In addition the PPP Annual Financial Audit for 2008 and 2009 both included statements of compliance by the independent auditor KPMG for the compliance with AASB Standards. |

| Compliance Reporting Manual Ref | Licence Condition Requirement | | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|---|
| | | | | Report 31 December 2009 | |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood | Unlikely | 5 | Nil | |
| | Consequence | Minor | | | |
| | Inherent Risk | Low | | | |
| | Adequacy of Controls | Strong | | | |
| **GENERATION LICENCE CONDITION 14 - INDIVIDUAL PERFORMANCE STANDARDS** | | | | | |
| | **Generation Licence condition 14.1**<br>Performance standards are contained in applicable legislation. | | Not Applicable<br>[NA] | Determined not to be applicable to the audit scope. | |
| | **Generation Licence condition 14.2**<br>The Authority may prescribe individual performance standards in relation to the licensee of its obligations under this licence or the applicable legislation. | | Not Applicable<br>[NA] | Determined not to be applicable to the audit scope. | |
| | **Generation Licence condition 14.3**<br>Before approving any individual performance standards under this clause, the Authority will:<br>(a) provide the licensee with a copy of the proposed individual performance standards; | | Not Applicable<br>[NA] | Determined not to be applicable to the audit scope. | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|
| | (b) allow 15 business days for the licensee to make submissions on the proposed individual performance standards; and<br>(c) take into consideration those submissions | | | |
| 106<br>[TYPE 2] | **Generation Licence condition 14.4 - Electricity Industry Act section 11**<br>Once approved by the Authority, the performance standards are included as additional terms and conditions to this licence.<br>A licensee must comply with any individual performance standards prescribed by the Authority. | Not Applicable<br>[NA] | Determined not to be applicable to the audit scope, as the Authority has not prescribed any individual reporting standards to Perth Power Partnership | |
| **GENERATION LICENCE CONDITION 15 - PERFORMANCE AUDIT** | | | | |
| 81<br>[TYPE NR] | **Generation Licence Condition 15.1 - Electricity Industry Act section 13(1)**<br>A licensee must, not less than once every 24 months, provide the Authority with a performance audit conducted by an independent expert acceptable to the Authority. | Compliant<br>[5] | ▪ Management meetings<br>▪ Notification of impending audit from the Authority<br>▪ EMPAC work order<br>▪ Service Agreement/Purchase order<br>▪ Correspondence ERA<br>▪ Various email correspondence<br>▪ Discussion with Operation & | The requirement for the audit is monitored by the Operation & Maintenance Supervisor. The requirement was also tracked and actioned in the Management Meetings, for example Minutes of Management Meeting 10/02/10 and 10/05/10.<br>The requirement for the audit is scheduled for annual notification on the 15/3/10 with a 2 yearly frequency i.e. next audit 15/3/12. It is noted that this routine task has been created from the previous audit |

| Compliance Reporting Manual Ref | Licence Condition Requirement | | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|---|
| | | | | Maintenance Supervisor | period. |
| | **Risk Assessment** | | **Audit Priority** | | |
| | Likelihood | Unlikely | 5 | Nil | |
| | Consequence | Minor | | | |
| | Inherent Risk | Low | | | |
| | Adequacy of Controls | Strong | | | |
| 107<br>[TYPE 2] | **Generation Licence condition 15.2 - Electricity Industry Act section 11**<br>A licensee must comply, and require its auditor to comply, with the Authority's standard audit guidelines dealing with the performance audit. | | Compliant<br>[5] | ▪ Compliance with ERA process<br>▪ Discussion with Operation & Plant Supervisor<br>▪ Correspondence with ERA<br>▪ Management Meeting Minutes | Direct instructions from Licensee to Auditor to comply with the ERA guidelines.<br>Copies of communications received from ERA relating to audit requirements sent by PPP through to Auditor to convey requirements specifically the undertaking of audits in compliance with the Audit Guidelines: Electricity, Gas and Water Licences.<br>The ERA Audit Requirements were tracked as part of the Management Meeting agenda. |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood | Unlikely | 5 | Nil | |
| | Consequence | Minor | | | |
| | Inherent Risk | Low | | | |
| | Adequacy of Controls | Strong | | | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|
| - | **Generation Licence condition 15.3**<br>The licensee may seek a review of any of the requirements of the Authority's standard audit guidelines in accordance with clause 21.1. | Not Applicable<br>[NA] | Determined not to be applicable to audit scope as there were no reviews undertaken. | |
| - | **Generation Licence condition 15.4**<br>The independent auditor may be nominated by the licensee but must be approved by the Authority prior to the audit pursuant to clause 0.1. Should the Authority reject the licensee's nomination of an independent auditor twice or, in the event that no nomination has been made by the licensee within 1 month of the date the audit was due, the Authority may choose an independent auditor who will conduct the audit. | Not Applicable<br>[NA] | Determined not to be applicable to audit scope as there were no reviews undertaken. | |
| **GENERATION LICENCE CONDITION 16 - ASSET MANAGEMENT SYSTEM** | | | | |
| 82<br>[TYPE NR] | **Generation Licence Condition 16.1 - Electricity Industry Act section 14 (1)(a)**<br>The *licensee* must provide for, and notify the Authority of, an *asset management system* in relation to the *generating works* within 2 *business days* from the *commencement date* or from the completion of construction of the | Compliant<br>[5] | ▪ Electricity Licence Application (22/12/05)<br>▪ Operations & Maintenance policies<br>▪ Operations and Maintenance Agreement (21st March 1995) - reporting requirements detailed in | Adequate provisions have been made and notifications undertaken for the asset management system. Additionally notification of the Asset Management System was included in the Licence Application. It is noted that the plant commenced commercial operation on 1 December 1996. |

| Compliance Reporting Manual Ref | Licence Condition Requirement | | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|---|
| | *generating works*, whichever is later. | | | Sections 6.1,6.2(g-i), 6.3, 8 & Appendix D in relation to maintenance, operating performance and efficiency<br>▪ Operation and Maintenance procedures<br>▪ Specific Maintenance procedures reviewed include;<br>▪ 02-02 Maintenance Planning (March 2009)<br>▪ 02-03 Routine Maintenance (April 2010)<br>▪ 02-04 Condition Monitoring Methods and Data Analysis (March 2010) | |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood<br>Consequence<br>Inherent Risk<br>Adequacy of Controls | Unlikely<br>Moderate<br>Medium<br>Strong | 4 | Nil | |
| 83<br>[TYPE 2] | **Generation Licence Condition 16.2 - Electricity Industry Act section 14 (1)(b)**<br>A licensee must notify details of the asset management system and any substantial | | Not Rated<br>[NR] | ▪ Interview with Plant Engineer Manager<br>▪ O&M Agreement<br>▪ Business Plan | During the audit period the licensee has not been required to notify the details of the asset management system and any substantial changes to it. As such assessment of compliance with this |

| Compliance Reporting Manual Ref | Licence Condition Requirement | | Compliance Rating | Verification/ Tests | Effectiveness |
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| | changes to it to the Authority. | | | ▪ Capital approvals procedures | requirement cannot be made. |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood<br>Consequence<br>Inherent Risk<br>Adequacy of Controls | Unlikely<br>Minor<br>Low<br>Strong | 5 | Nil | |
| 84<br>[TYPE NR] | **Generation Licence Condition 16.3 - Electricity Industry Act section 14 (1)(c)**<br>A licensee must provide the Authority with a report by an independent expert as to the effectiveness of its asset management system every 24 months, or such longer period as determined by the Authority. | | Compliant<br>[5] | ▪ Management Meeting Minutes tracked the requirement for the ERA audit and detailed progress month by month<br>▪ EMPAC work order created for next audit<br>▪ ▪ The requirement for the audit is scheduled for annual notification on the 15/3/08 with a 2 yearly frequency i.e. next audit 15/3/10<br>▪ Purchase order for the audit was issued to GES | GES has been appointed in accordance with the Audit Guidelines. Preparation of this report indicates compliance with this requirement. |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood<br>Consequence | Unlikely<br>Minor | 5 | Nil | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|---|
| | Inherent Risk<br>Adequacy of Controls | Low<br>Strong | | | |
| 108<br>[TYPE 2] | **Generation Licence condition 16.4 - Electricity Industry Act section 11**<br>A licensee must comply, and must require the licensee's expert to comply, with the relevant aspects of the Authority's standard guidelines dealing with the asset management system. | | Compliant<br>[4] | ▪ Compliance with ERA process<br>▪ Management Review processes<br>▪ Discussion with Plant Manager<br>▪ ERA approved auditor selected | Direct instructions from Licensee to Auditor to comply with the ERA guidelines.<br>Copies of communications received from ERA relating to audit requirements sent by PPP through to Auditor to convey requirements specifically the undertaking of audits in compliance with the Audit Guidelines: Electricity, Gas and Water Licences (Letter ERA Ref D29451, 7th May 2010)<br>Monthly management meetings have tracked progress for ERA audit and all other site audits |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood<br>Consequence<br>Inherent Risk<br>Adequacy of Controls | Unlikely<br>Minor<br>Low<br>Strong | 5 | Nil | |
| - | **Generation Licence condition 16.5**<br>Electricity Industry Act section 11The licensee may seek a review of any of the requirements of the Authority's standard guidelines dealing | | Not Applicable<br>[NA] | Determined to be Not Applicable to Audit<br>*Note: This item was included in the Audit Scope but was not identified for review in the Audit Plan.* | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | Compliance Rating | Verification/ Tests | Effectiveness |
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| | with the asset management system in accordance with clause 21.1. | | | |
| - | **Generation Licence condition 16.6**<br>The independent expert may be nominated by the licensee but must be approved by the Authority prior to the review pursuant to clause 16.3. Should the Authority reject the licensee's nomination of an independent expert twice or in the event that no independent expert has been nominated by the licensee within 1 month of the date the review was due, the Authority may choose an independent expert who will conduct the review. | Not Applicable<br>[NA] | Determined to be Not Applicable to Audit<br>*Note: This item was included in the Audit Scope but was not identified for review in the Audit Plan* | |
| **GENERATION LICENCE CONDITION 17 - REPORTING** | | | | |
| 109<br>[TYPE 2] | **Generation Licence condition 17.1 - Electricity Industry Act section 11**<br>The licensee must report to the Authority:<br>(a) if the licensee is under external administration as defined by the Corporations Act 2001 (Cwlth) within 2 business days; or<br>(b) if the licensee experiences a significant change in the licensee's corporate, financial or technical circumstances upon which this licence was granted which may affect the licensee's ability to meet its obligations under | Not Rated<br>[NR] | ▪ Operations and Maintenance Agreement<br>▪ Financial Reports<br>▪ Reporting controls<br>▪ Discussion with Operation & Maintenance Supervisor | During the Audit Period 1st July 2008 to 30th June 2010, Perth Power Partnership was not under external administration and had not undergone any significant change in the circumstances upon which the licence was granted. As such there was no obligation to report to the Authority. |

| Compliance Reporting Manual Ref | Licence Condition Requirement | | Compliance Rating | Verification/ Tests | Effectiveness |
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| | this licence within 10 business days of the change occurring.<br>A licensee must report to the Authority, in the manner prescribed, if a licensee is under external administration or there is a significant change in the circumstances upon which the licence was granted which may affect a licensee's ability to meet its obligations. | | | | |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood<br>Consequence<br>Inherent Risk<br>Adequacy of Controls | Unlikely<br>Minor<br>Low<br>Strong | 5 | Nil | |
| **GENERATION LICENCE CONDITION 18- PROVISION OF INFORMATION** | | | | | |
| 110<br>[TYPE 2] | **Generation Licence condition 18.1 - Electricity Industry Act section 11 - Compliance and Reporting Manual March 2008 section 5.3 and section 5.4**<br>A licensee must provide the Authority, in the manner prescribed, any information the Authority requires in connection with its functions under the Electricity Industry Act. | | Compliant<br>[5] | ▪ Compliance with ERA process<br>▪ Management meeting minutes<br>▪ EGL8 - Compliance Report 1 July 2008 to 30 June 2009 (Dated 01/07/09)<br>▪ EGL8 - Compliance Report 1 July 2009 – 30 June 2010 | Every licensee is required to submit a compliance report to the Authority covering all of its type 1 and type 2 licence obligations for each financial year (1 July to 30 June inclusive) by 31 August immediately following the financial year that is the subject of the report.<br>Compliance Reports were submitted as required to ERA during Audit Period 1st July 2008 to 30th June 2010. |

| Compliance Reporting Manual Ref | Licence Condition Requirement | | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|---|
| | | | | (Dated 1/07/10) | |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood | Unlikely | 5 | Nil | |
| | Consequence | Minor | | | |
| | Inherent Risk | Low | | | |
| | Adequacy of Controls | Strong | | | |
| **GENERATION LICENCE CONDITION 19 - PUBLISHING INFORMATION** | | | | | |
| | **Generation Licence condition 19.1**<br>The Authority may direct the licensee to publish any information within a specified timeframe it considers relevant in connection with the licensee or the performance by the licensee of its obligations under this licence. | | Not Applicable<br>[NA] | Determined to be Not Applicable to Audit - the Authority has not required Perth Power Partnership to publish anything during the audit period | |
| 111<br>[TYPE 2] | **Generation Licence condition 19.2 - Electricity Industry Act section 11**<br>A licensee must publish any information it is directed by the Authority to publish, within the timeframes specified. | | Not Rated<br>[NR] | ▪ IPL Website<br>▪ Discussion with Operation & Maintenance Supervisor<br>▪ Review of ERA Website | There have been no requirements by the Authority to "publish" anything. As such this requirements was not rated.<br>It is noted that PPP has the ability to comply by publishing on the International Power Kwinana Website (www.ipplc.com.au). |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|---|
| | Likelihood<br>Consequence<br>Inherent Risk<br>Adequacy of Controls | Unlikely<br>Minor<br>Low<br>Strong | 5 | Nil | |
| - | **Generation Licence condition 19.3**<br>If the licensee considers that the information is confidential it must:<br>(a) immediately notify the Authority; and<br>(b) seek a review of the Authority's decision in accordance with clause 21.1. | | Not Applicable<br>[NA] | Determined to be Not Applicable to Audit | |
| - | **Generation Licence condition 19.4**<br>Once it has reviewed the decision, the Authority will direct the licensee in accordance with the review to:<br>(a) publish the information;<br>(b) publish the information with the confidential information removed or modified; or<br>(c) not publish the information. | | Not Applicable<br>[NA] | Determined to be Not Applicable to Audit | |
| **GENERATION LICENCE CONDITION 20 – NOTICES** | | | | | |
| 112 | **Generation Licence condition 20.1 -** | | Compliant | ▪ Compliance with ERA process | Use of ERA reporting protocols confirmed in discussion with Asset Manager. Also |

| Compliance Reporting Manual Ref | Licence Condition Requirement | | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|---|
| [TYPE 2] | **Electricity Industry Act section 11**<br>Unless otherwise specified, all notices must be in writing. | | [5] | ▪ Management meeting minutes<br>▪ Use of ERA reporting protocols<br>▪ Certification to ISO 9001. | verified through completion of the compliance reports. |
| | **Risk Assessment** | | **Audit Priority** | **Corrective Action/Opportunity for Improvement** | |
| | Likelihood | Unlikely | 5 | Nil | |
| | Consequence | Minor | | | |
| | Inherent Risk | Low | | | |
| | Adequacy of Controls | Strong | | | |
| - | **Generation Licence condition 20.2**<br>A notice will be regarded as having been sent and received:<br>(a) when delivered in person to the addressee; or<br>(b) 3 business days after the date of posting if the notice is posted in Western Australia; or<br>(c) 5 business days after the date of posting if the notice is posted outside Western Australia; or<br>(d) if sent by facsimile when, according to the sender's transmission report, the notice has been successfully received by the addressee; | | Not Applicable<br>[NA] | Determined to be Not Applicable to Audit | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|
| | or<br>(e) if sent by email when, according to the sender's electronic record, the notice has been successfully sent to the addressee's electricity licensing email address. | | | |
| **GENERATION LICENCE CONDITION 21 - REVIEW OF THE AUTHORITY'S DECISIONS** | | | | |
| - | **Generation Licence condition 21.1**<br>The licensee may seek a review of a reviewable decision by the Authority pursuant to this licence in accordance with the following procedure:<br>(a) the licensee shall make a submission on the subject of the reviewable decision within 10 business days (or other period as approved by the Authority) of the decision; and<br>(b) the Authority will consider the submission and provide the licensee with a written response within 20 business days.<br>For the avoidance of doubt, this clause does not apply to a decision of the Authority pursuant to the Act, nor does it restrict the licensee's right to have a decision of the Authority reviewed in accordance with the Act. | Not Applicable<br>[NA] | Determined to be Not Applicable to Audit | |

| Compliance Reporting Manual Ref | Licence Condition Requirement | Compliance Rating | Verification/ Tests | Effectiveness |
|---|---|---|---|---|
| - | **Generation Licence condition 21.2**<br><br>For the avoidance of doubt, this clause does not apply to a decision of the *Authority* pursuant to the *Act,* nor does it restrict the *licensee's* right to have a decision of the *Authority* reviewed in accordance with the Act. | Not Applicable<br><br>[NA] | Determined to be Not Applicable to Audit | |

# APPENDIX 2

# PERTH POWER PARTNERSHIP: KWINANA COGENERATION PLANT
# ASSET MANAGEMENT REVIEW
# SEPTEMBER 2010

## Table 1.0 Effectiveness Criteria Descriptors

| | | |
|---|---|---|
| **1** | **Key Process - Asset Planning**<br>*Asset planning strategies are focused on meeting customer needs in the most effective and efficient manner (delivering the right service at the right price).* | **Outcome**<br>*Integration of asset strategies into operational or business plans will establish a framework for existing and new assets to be effectively utilised and their service potential optimised.* |
| 1.1 | Planning process and objectives reflect the needs of all stakeholders and is integrated with business planning | |
| 1.2 | Service levels are defined | |
| 1.3 | Non-asset options (e.g. demand management) are considered | |
| 1.4 | Lifecycle costs of owning and operating assets are assessed | |
| 1.5 | Funding options are evaluated | |
| 1.6 | Costs are justified and cost drivers identified | |
| 1.7 | Likelihood and consequences of asset failure are predicted | |
| 1.8 | Plans are regularly reviewed and updated | |
| **2** | **Key Process - Asset creation/acquisition**<br>*Asset creation/acquisition means the provision or improvement of an asset where the outlay can be expected to provide benefits beyond the year of outlay.* | **Outcome**<br>*A more economic, efficient and cost-effective asset acquisition framework which will reduce demand for new assets, lower service costs and improve service delivery.* |
| 2.1 | Full project evaluations are undertaken for new assets, including comparative assessment of non-asset solutions | |
| 2.2 | Evaluations include all life-cycle costs | |
| 2.3 | Projects reflect sound engineering and business decisions | |
| 2.4 | Commissioning tests are documented and completed | |
| 2.5 | Ongoing legal/environmental/safety obligations of the asset owner are assigned and understood | |
| **3** | **Key process - Asset disposal**<br>*Effective asset disposal frameworks incorporate consideration of alternatives for the disposal of surplus, obsolete, under-performing or unserviceable assets. Alternatives are evaluated in cost-benefit terms* | **Outcome**<br>*Effective management of the disposal process will minimise holdings of surplus and under-performing assets and will lower service costs.* |
| 3.1 | Under-utilised and under-performing assets are identified as part of a regular systematic review process | |
| 3.2 | The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken | |
| 3.3 | Disposal alternatives are evaluated | |
| 3.4 | There is a replacement strategy for assets | |

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| **4** | **Key Process - Environmental analysis**<br>*Environmental analysis examines the asset system environment and assesses all external factors affecting the asset system.* | **Outcome**<br>*The asset management system regularly assesses external opportunities and threats and takes corrective action to maintain performance requirements.* |
| 4.1 | Opportunities and threats in the system environment are assessed | |
| 4.2 | Performance standards (availability of service, capacity, continuity, emergency response, etc) are measured and achieved | |
| 4.3 | Compliance with statutory and regulatory requirements | |
| 4.4 | Achievement of customer service levels | |
| **5** | **Key Process - Asset operations**<br>*Operations functions relate to the day-to-day running of assets and directly affect service levels and costs.* | **Outcome**<br>*Operations plans adequately document the processes and knowledge of staff in the operation of assets so that service levels can be consistently achieved.* |
| 5.1 | Operational policies and procedures are documented and linked to service levels required | |
| 5.2 | Risk management is applied to prioritise operations tasks | |
| 5.3 | Assets are documented in an Asset Register including asset type, location, material, plans of components, an assessment of assets' physical/structural condition and accounting data | |
| 5.4 | Operational costs are measured and monitored | |
| 5.5 | Staff receive training commensurate with their responsibilities | |
| **6** | **Key process - Asset maintenance**<br>*Maintenance functions relate to the upkeep of assets and directly affect service levels and costs.* | **Outcome**<br>*Maintenance plans cover the scheduling and resourcing of the maintenance tasks so that work can be done on time and on cost.* |
| 6.1 | Maintenance policies and procedures are documented and linked to service levels required | |
| 6.2 | Regular inspections are undertaken of asset performance and condition | |
| 6.3 | Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule | |
| 6.4 | Failures are analysed and operational/maintenance plans adjusted where necessary | |
| 6.5 | Risk management is applied to prioritise maintenance tasks | |
| 6.6 | Maintenance costs are measured and monitored | |
| **7** | **Key process - Asset Management Information System (MIS)**<br>*An asset management information system is a combination of processes, data and software that support the asset management functions.* | **Outcome -**<br>*The asset management information system provides authorised, complete and accurate information for the day-to-date running of the asset management system. The focus of the review is the accuracy of performance information used by the licensee to monitor and report on service standards.* |
| 7.1 | Adequate system documentation for users and IT operators | |
| 7.2 | Input controls include appropriate verification and validation of data entered into the system | |
| 7.3 | Logical security access controls appear adequate, such as passwords | |
| 7.4 | Physical security access controls appear adequate | |
| 7.5 | Data backup procedures appear adequate | |
| 7.6 | Key computations related to licensee performance reporting are materially accurate | |
| 7.7 | Management reports appear adequate for the licensee to monitor licence obligations | |

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| **8** | **Key Process - Risk Management**<br>*Risk management involves the identification of risks and their management within an acceptable level of risk.* | **Outcome**<br>*An effective risk management framework is applied to manage risks related to the maintenance of service standards* |
| 8.1 | Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system | |
| 8.2 | Risks are documented in a risk register and treatment plans are actioned and monitored | |
| 8.3 | The probability and consequences of asset failure are regularly assessed | |
| **9** | **Key Process - Contingency Planning**<br>*Contingency plans document the steps to deal with the unexpected failure of an asset.* | **Outcome-**<br>*Contingency plans have been developed and tested to minimise any significant disruptions to service standards.* |
| 9.1 | Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks | |
| **10** | **Key Process - Financial Planning**<br>*The financial planning component of the asset management plan brings together the financial elements of the service delivery to ensure its financial viability over the long term.* | **Outcome**<br>*A financial plan that is reliable and provides for long-term financial viability of services* |
| 10.1 | The financial plan states the financial objectives and strategies and actions to achieve the objectives | |
| 10.2 | The financial plan identifies the source of funds for capital expenditure and recurrent costs | |
| 10.3 | The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets) | |
| 10.4 | The financial plan provide firm predictions on income for the next five years and reasonable indicative predictions beyond this period | |
| 10.5 | The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services | |
| 10.6 | Significant variances in actual/budget income and expenses are identified and corrective action taken where necessary | |

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| **11** | **Key Process - Capital Expenditure Planning**<br>*The capital expenditure plan provides a schedule of new works, rehabilitation and replacement works, together with estimated annual expenditure on each over the next five or more years.*<br>*Since capital investments tend to be large and lumpy, projections would normally be expected to cover at least 10 years, preferably longer. Projections over the next five years would usually be based on firm estimates.* | **Outcome -**<br>*A capital expenditure plan that provides reliable forward estimates of capital expenditure and asset disposal income, supported by documentation of the reasons for the decisions and evaluation of alternatives and options.* |
| 11.1 | There is a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates | |
| 11.2 | The plan provide reasons for capital expenditure and timing of expenditure | |
| 11.3 | The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan | |
| 11.4 | There is an adequate process to ensure that the capital expenditure plan is regularly updated and actioned | |
| **12** | **Key Process - Review of AMS**<br>*The asset management system is regularly reviewed and updated* | **Outcome**<br>*Review of the Asset Management System to ensure the effectiveness of the integration of its components and their currency.* |
| 12.1 | A review process is in place to ensure that the asset management plan and the asset management system described therein are kept current | |
| 12.2 | Independent reviews (e.g. internal audit) are performed of the asset management system | |

## Table 2.0 Audit Review Ratings & Recommendations

| | | | |
|---|---|---|---|
| 1 | **Key Process - Asset Planning**<br>*Asset planning strategies are focused on meeting customer needs in the most effective and efficient manner (delivering the right service at the right price).*<br>**Outcome**<br>*Integration of asset strategies into operational or business plans will establish a framework for existing and new assets to be effectively utilised and their service potential optimised.* | **Asset management process and policy definition adequacy rating**<br>**A** | **Asset management performance rating**<br>**1** |
| **Interviewees:**<br>Mark Jameson – Operations and Maintenance Supervisor<br>Ken Ferguson – HSEQ Compliance Advisor<br>Andrew Usher – Plant Engineer | | **Relevant documentation:**<br>1. **Kwinana Cogeneration Project Business Plan 2009 - 13**<br>2. **Kwinana Cogeneration Project Business Plan 2010 - 14**<br>3. **Kwinana Cogeneration Plant Monthly Report Sept 2008**<br>4. **Kwinana Cogeneration Plant Monthly Report June 2009**<br>5. **Kwinana Cogeneration Plant monthly Report February 2010**<br>6. **Verve Contract – Supply of Electricity Part 3 Section 8 in Power purchase Agreement**<br>7. **BP Contract – BP Energy and Services Agreement – Supply of Electricity and Steam Part 3 Section 8**<br>8. **Perth Power Partnership Meeting minutes – 10th March 2010**<br>9. **Perth Power Partnership Meeting minutes – 17th December 2009**<br>10. **Perth Power Partnership Meeting minutes – 13th May 2010**<br>11. **Whole of Plant Risk assessment for Kwinana Cogeneration Plant (spreadsheet)** | |

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|---|---|
| | 12. **Perth Power Partnership Annual Report 2009**<br>13. **Kwinana Cogeneration Plant Annual Report 2009**<br>14. **Kwinana Risk Survey Report Update 03.09 Version 1 (Marsh Report)**<br>15. **Kwinana Operations and Maintenance Agreement – Kwinana Power partnership**<br>16. **Australian Regional Review – Business Plan 2010 - 2014 Asset Overview – Perth Power Partnership**<br>17. **Kwinana Maintenance Prediction -2010**<br>18. **Customer Satisfaction Survey – SurveyMonkey December 2009 July 2010 responses**<br>19. **External complaint Form – KCP-07-04**<br>20. **Identifying Customer Requirements and Measuring Satisfaction Procedure - KCP-06-06**<br>21. **Fuel/Gas Management – KCP-03-02**<br>22. **EMPAC asset management & maintenance software**<br>23. **Toolbox meeting minutes**<br>24. **2010 audit schedule**<br>25. **Preparation of annual business plan KCP-05-02**<br>26. **Review by Price Waterhouse Coopers: IPM Operations & Maintenance Kwinana Pty Ltd – Kwinana DSCR Review**<br>27. **Syndicated Project Facility Agreement 1995**<br>28. **Minutes of Management Meeting 25 May 2009**<br>29. **Minutes of Management Meeting 10 February 2010** |

| **Criteria Effectiveness** | | | **Post Review Audit Priority** | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Policy** | **Performance** | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** | **Adequacy rating** | **Performance Rating** |

| | | | A=likely B=probable C=unlikely | 1=minor 2=moderate 3=major | L=low M=medium H=high | S=strong M=moderate W=weak | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1.1 | Ref docs - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 16, 25, 28 & 29<br><br>Note: Audit Priority changed from 2 to 5 due to review and assessment of control adequacy. Control mechanisms are sufficient and adequately address requirements. | Asset strategies are documented within the business plans which are reviewed and updated on an annual basis. Asset planning is based on the long term operation and maintenance requirements as detailed in the O&M Agreement and the requirements of the Verve and BP contracts for the supply of electricity and steam. Customer satisfaction surveys are performed. | C | 1 | L | S | 5 | A | 1 |
| 1.2 | Ref docs - 1, 2 ,6, 7, 15 & 21 | Service levels are defined through Power Purchase and Steam Supply Agreements. Long-term service levels are detailed in the O&M agreement, the business plan provide a 5-year prediction of service levels. | C | 1 | L | S | 5 | A | 1 |
| 1.3 | Ref docs – 1, 2, 6 ,12 &13 | Agreements with Verve and BP are well defined and clear in relation to demand management. Plant output is matched to BP steam demand | C | 1 | L | S | 5 | A | 1 |

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| | | and BP and Verve generation requirements. | | | | | | | |
| 1.4 | Ref docs – 1, 2, 16 & 17 | Life cycle costs are monitored, evaluated, reported and incorporated into the business and budget planning processes. | C | 2 | M | S | 4 | A | 1 |
| 1.5 | Ref docs – 1, 2, 8, 9, 10, 12, 13, 16, 26 & 27 | Alternative funding options are evaluated at the Board levels on an annual basis. Operational and maintenance costs are self funded while capital expenditure is primarily facilitated through the project finance facility agreement. | B | 2 | M | S | 4 | A | 1 |
| 1.6 | Ref docs – 1, 2, 3, 5, 8, 9, 10, 12, 13, 16, 17, 28 & 29 | Monthly & Annual Reports provide detail on budget and cost drivers including unbudgeted expenditure, variances are monitored and actioned. | B | 2 | M | S | 4 | A | 1 |
| 1.7 | Ref docs – 3, 4, 5, 8, 9, 10, 11, 14, 22, 28 & 29 | The likelihood and consequences of asset failure are analysed and risk rated in both the whole of plant risk assessment and the Marsh report. Plant availability and incidents are regularly reported, a procedure exists to | B | 2 | M | S | 4 | A | 1 |

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| | | ensure that all incidents are reviewed. | | | | | | | |
| 1.8 | Ref docs – 1, 2, 3, 4, 5, 8, 9, 10, 11, 14, 22, 24, 25, 28 & 29 | All plans are reviewed on a monthly, quarterly and annual basis and an internal audit schedule exists documenting the review of plans and procedures. | B | 2 | M | S | 4 | A | 1 |

| **Comments & Recommendations** |
|---|
| Nil |

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|---|---|---|---|
| 2 | **Key Process - Asset creation/acquisition**<br>*Asset creation/acquisition means the provision or improvement of an asset where the outlay can be expected to provide benefits beyond the year of outlay.* | **Asset management process and policy definition adequacy rating**<br><br>**A** | **Asset management performance rating**<br><br>**1** |
| | **Outcome**<br>*A more economic, efficient and cost-effective asset acquisition framework which will reduce demand for new assets, lower service costs and improve service delivery.* | | |
| **Interviewees:**<br>Mark Jameson – Operations and Maintenance Supervisor<br>Ken Ferguson – HSEQ Compliance Advisor<br>Andrew Usher – Plant Engineer | | **Relevant documentation:**<br>1. **Kwinana Cogeneration Project Business Plan 2009 - 13**<br>2. **Kwinana Cogeneration Project Business Plan 2010 - 14**<br>3. **Kwinana Cogeneration Plant Monthly Report Sept 2008**<br>4. **Kwinana Cogeneration Plant Monthly Report June 2009**<br>5. **Kwinana Cogeneration Plant monthly Report February 2010**<br>6. **Perth Power Partnership Meeting minutes – 10th March 2010**<br>7. **Perth Power Partnership Meeting minutes – 17th December 2009**<br>8. **Perth Power Partnership Meeting minutes – 13th May 2010**<br>9. **Australian Regional Review – Business Plan 2010 - 2014 Asset Overview – Perth Power Partnership**<br>10. **Kwinana Maintenance Prediction -2010**<br>11. **Minutes of Management Meeting 10 Feb 2010**<br>12. **Minutes of Management Meeting 25 May 2009**<br>13. **6th May 2010 Kwinana bearing No2 failure report update 8th June 2010**<br>14. **Purchase of Goods & Services Procedure KCP- 06-02** | |

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| | | | **15. Minutes of Management Meeting 25 May 2009**<br>**16. Minutes of Management Meeting 10 February 2010**<br>**17. Plant or Operational Change Approval Procedure KCP-04-02**<br>**18. Quality Management Procedure KCP-04-01**<br>**19. Project Checklist Form KCP-04-09**<br>**20. Table of IPM Kwinana License Renewals / Reports Due / and Fees**<br>**21. Record of change to Legislative requirements matrix KCP-01-01**<br>**22. Minutes of Quarterly Compliance Meeting 3/4/09, 8/6/09,**<br>**23. 2010 Audit schedule** | | | | | |
| **Criteria Effectiveness** | | | **Post Review Audit Priority** | | | | | | |
| | **Policy** | **Performance** | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** | **Adequacy rating** | **Performance Rating** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | | | |
| 2.1 | Ref docs – 1, 2, 6, 7, 8, 9, 10 & 13 | Project evaluation of new assets is well documented, reviewed and controlled. The only major asset purchase during the review period was the replacement rotor after the failure of bearing No 2; the failure report included a review of all options, financial impact and the | C | 2 | M | S | 4 | A | 1 |

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| | | impact on service delivery. | | | | | | | |
| 2.2 | Ref docs – 1, 2, 10 & 13 | Life –cycle costs are evaluated as part of the asset acquisition process and the maintenance management process. | C | 2 | M | S | 4 | A | 1 |
| 2.3 | Ref docs – 13 | The business case for the replacement rotor demonstrates sound engineering and business decisions. Both the engineering, financial and service impacts of the failure and final decision were clearly documented and reviewed. | C | 2 | M | S | 4 | A | 1 |
| 2.4 | Ref docs – 17, 18 & 19 | Documented procedures exist to ensure that commissioning tests & data are conducted and documented. | C | 2 | M | S | 4 | A | 1 |
| 2.5 | Ref docs – 20, 21, 22 & 23 | Legal, environmental and safety obligations are well understood monitored and controlled.<br>The plant has been certified by SAI Global during the Triennial audit conducted in 2009 as having an effective integrated management system compliant with OHS | C | 2 | M | S | 4 | A | 1 |

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| | | AS4801, Environment Management System ISO 14001 and Quality Management ISO 9001. | | | | | | | |

| **Comments & Recommendations** |
|---|
| Nil |

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| 3 | **Key process - Asset disposal**<br>*Effective asset disposal frameworks incorporate consideration of alternatives for the disposal of surplus, obsolete, under-performing or unserviceable assets. Alternatives are evaluated in cost-benefit terms*<br>**Outcome**<br>*Effective management of the disposal process will minimise holdings of surplus and under-performing assets and will lower service costs.* | **Asset management process and policy definition adequacy rating**<br>**A** | **Asset management performance rating**<br>**1** |
| **Interviewees:**<br>Mark Jameson – Operations and Maintenance Supervisor<br>Andrew Usher – Plant Engineer<br>Lui Dinardo – Financial Controller | | **Relevant documentation:**<br>1. **Kwinana Cogeneration Project Business Plan 2009 - 13**<br>2. **Kwinana Cogeneration Project Business Plan 2010 - 14**<br>3. **Kwinana Cogeneration Plant Monthly Report Sept 2008**<br>4. **Kwinana Cogeneration Plant Monthly Report June 2009**<br>5. **Kwinana Cogeneration Plant monthly Report February 2010**<br>6. **Australian Regional Review – Business Plan 2010 - 2014 Asset Overview – Perth Power Partnership**<br>7. **Kwinana Maintenance Prediction -2010**<br>8. **Perth Power Partnership Meeting minutes – 10th March 2010**<br>9. **Perth Power Partnership Meeting minutes – 17th December 2009**<br>10. **Perth Power Partnership Meeting minutes – 13th May 2010**<br>11. **EMPAC asset management & maintenance software**<br>12. **Whole of Plant Risk assessment for Kwinana Cogeneration Plant (spreadsheet)**<br>13. **Plant or Operational Change Approval Procedure KCP-** | |

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| | | | **04-02**<br>**14. Modification Request Form KCP0401**<br>**15. Disposal of Redundant Assets Procedure KCP-05-25**<br>**16. Waste Disposal Procedure KCP 01-08**<br>**17. Spare Parts Policy Procedure KCP-06-07**<br>**18. Design process Procedure KCP-04-04**<br>**19. 6 May 2010 Kwinana Bearing No 2 Failure (update as at 8 June 2010)**<br>**20. Kwinana Maintenance Prediction -2010**<br>**21. Minutes of Management Meeting 25 May 2009**<br>**22. Minutes of Management Meeting 10 February 2010** | | | | | | |
| **Criteria Effectiveness** | | | **Post Review Audit Priority** | | | | | | |
| | **Policy** | **Performance** | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** | **Adequacy Rating** | **Performance Rating** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | | | |
| 3.1 | Ref docs – 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 28 & 29 | EMPAC is utilised to identify asset performance and condition and reported at monthly Management and quarterly Board meetings. Under-utilised and/or under-performing assets are identified and appropriate corrective action taken, as required. | C | 1 | L | S | 5 | A | 1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 3.2 | Ref docs - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 28 & 29 | See comments above. Effectiveness of this system process was evident in the business justification for the refurbishment of damaged rotor. | C | 1 | L | S | 5 | A | 1 |
| 3.3 | Ref docs – 6, 12, 13, 15, 16 & 19 | Assets are evaluated according to its value to add to current operations. Evaluation options include refurbishment, sold to staff, donated to charity and/or disposed as waste. | C | 1 | L | S | 5 | A | 1 |
| 3.4 | Ref docs – 1, 2, 6, 7, 8, 9, 10, 11, 12 & 20 | Asset conditions are monitored through EMPAC and as asset life is consumed they are replaced, in particular consumables. Although major plant has been designed for the life of the operation extensive risk assessment of all plant is carried out annually. | C | 1 | L | S | 5 | A | 1 |

| **Comments & Recommendations** |
|---|
| Nil. |

| | | | |
|---|---|---|---|
| 4 | **Key Process - Environmental analysis**<br>*Environmental analysis examines the asset system environment and assesses all external factors affecting the asset system.* | **Asset management process and policy definition adequacy rating**<br><br>**A** | **Asset management performance rating**<br><br>**1** |
| | **Outcome**<br>*The asset management system regularly assesses external opportunities and threats and takes corrective action to maintain performance requirements.* | | |
| **Interviewees:**<br>Mark Jameson – Operations and Maintenance Supervisor<br>Ken Ferguson – HSEQ Compliance Advisor<br>Andrew Usher – Plant Engineer | | **Relevant documentation:**<br>1. **Kwinana Cogeneration Project Business Plan 2009 - 13**<br>2. **Kwinana Cogeneration Project Business Plan 2010 - 14**<br>3. **Kwinana Cogeneration Plant Monthly Report Sept 2008**<br>4. **Kwinana Cogeneration Plant Monthly Report June 2009**<br>5. **Kwinana Cogeneration Plant monthly Report February 2010**<br>6. **Australian Regional Review – Business Plan 2010 - 2014 Asset Overview – Perth Power Partnership**<br>7. **IPM Kwinana Cogeneration Plant Business Continuity Plan KCP-08-14**<br>8. **Minutes of Management Meeting 10 Feb 2010**<br>9. **Minutes of Management Meeting 25 May 2009**<br>10. **Preparation of annual business plan KCP-05-02**<br>11. **Perth Power Partnership Meeting minutes – 10th March 2010**<br>12. **Perth Power Partnership Meeting minutes – 17th December 2009**<br>13. **Perth Power Partnership Meeting minutes – 13th May 2010**<br>14. **Table of IPM Kwinana License Renewals / Reports Due /** | |

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|---|---|---|---|---|---|---|---|---|---|
| | | | **and Fees**<br>**15. Record of change to Legislative requirements matrix KCP-01-01**<br>**16. Minutes of Quarterly Compliance Meeting 3/4/09, 8/6/09, 29/9/09 & 15/4/10**<br>**17. Minutes of Management Meeting 25 May 2009**<br>**18. Minutes of Management Meeting 10 February 2010**<br>**19. Environmental Licence** | | | | | | |
| **Criteria Effectiveness** | | | **Post Review Audit Priority** | | | | | | |
| | **Policy** | **Performance** | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** | **Adequacy Rating** | **Performance Rating** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | | | |
| 4.1 | Ref docs - 1, 2, 3, 4, 5 ,6, 8, 9, 10, 11, 12, 13, 17 & 18 | Opportunities and threats are reviewed and assessed as part of the annual business planning process and regularly reported within the monthly report. | B | 2 | M | S | 4 | A | 1 |
| 4.2 | Ref docs – 3, 4, 5, 17 & 18 | The monthly reports document the performance of the plant, fuel supply and customer demand. | C | 1 | L | S | 5 | A | 1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 4.3 | Ref docs – 14, 15, 16 & 19 | Statutory and regulatory requirements are documented and regular reviewed via the quarterly compliance meetings, internal and external audit recommendations are tabled and action plans monitored. Correspondence was reviewed. | A | 3 | H | S | 2 | B | 3 |
| 4.4 | Ref docs – 3, 4, 5, 6, 8, 9, 11, 12, 13, 16, 17 & 18 | Customer service levels are well documented and review on a regular basis. Deviations from expected standards are reported, investigated and remedial action plans are monitored. | B | 2 | M | S | 4 | A | 1 |

**Comments & Recommendations**

It is understood that there has been some disagreement over the inclusion of the Waste water discharge in the Licensee's Environmental Licence or BP's Environmental Licence.

Currently, the intention of the DEC is to include it in PPP's Licence. IPL may challenge this decision. The Environmental Licence for the site is essentially its licence to operate within the environmental parameters defined, if the disagreement is not readily resolved the cessation of discharge could have an impact on the operational ability of the plant.

Recommendation: Resolution of the issue is required to ensure the future discharge of waste water in accordance with licence requirements.

| | | | |
|---|---|---|---|
| 5 | **Key Process - Asset operations**<br>*Operations functions relate to the day-to-day running of assets and directly affect service levels and costs.*<br><br>**Outcome**<br>*Operations plans adequately document the processes and knowledge of staff in the operation of assets so that service levels can be consistently achieved.* | **Asset management process and policy definition adequacy rating**<br><br>**A** | **Asset management performance rating**<br><br>**1** |
| **Interviewees:**<br>Mark Jameson – Operations and Maintenance Supervisor<br>Ken Ferguson – HSEQ Compliance Advisor<br>Andrew Usher – Plant Engineer | | **Relevant documentation:**<br>**1. Kwinana Cogeneration Project Business Plan 2009 - 13**<br>**2. Kwinana Cogeneration Project Business Plan 2010 - 14**<br>**3. Kwinana Cogeneration Plant Monthly Report Sept 2008**<br>**4. Kwinana Cogeneration Plant Monthly Report June 2009**<br>**5. Kwinana Cogeneration Plant monthly Report February 2010**<br>**6. Australian Regional Review – Business Plan 2010 - 2014 Asset Overview**<br>**7. Document register – policies and procedures**<br>**8. Plant Operating Policy KCP – 03 & Procedure KCP-03-04**<br>**9. Plant Operating Logs and Records Procedure KCP-03-23**<br>**10. Training Procedure KCP-07-10**<br>**11. Verve Contract – Supply of Electricity Part 3 Section 8 in Power purchase Agreement**<br>**12. BP Contract – BP Energy and Services Agreement – Supply of Electricity**<br>**13. Black & Vetch (OEM) Operations & Maintenance Manuals**<br>**14. GE Operating Manuals**<br>**15. GE Technician Training manuals** | |

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|---|---|---|---|---|---|---|---|---|---|
| | | | **16. Training records**<br>**17. EMPAC asset management & maintenance software**<br>**18. Fuel/Gas Management – KCP-03-02**<br>**19. Weekly Toolbox Meeting minutes**<br>**20. Training matrix and reports**<br>**21. Minutes of Management Meeting 25 May 2009**<br>**22. Minutes of Management Meeting 10 February 2010** | | | | | | |
| **Criteria Effectiveness** | | | **Post Review Audit Priority** | | | | | | |
| | **Policy** | **Performance** | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** | **Adequacy Rating** | **Performance rating** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | | | |
| 5.1 | Ref docs – 1, 2, 7, 8, 9, 10, 11, 12 & 18 | Operating policies and procedures (including emergency procedures) are well documented and regularly reviewed. Service levels are known and regularly reported, reviewed and incorporated into the operating procedures e.g. Fuel/Gas Management KCP-03-02 | B | 1 | L | S | 5 | A | 1 |
| 5.2 | Ref docs – 7, 8, 17 & 19<br><br>Note: Audit Priority changed | Operations tasks are prioritised at the weekly toolbox meetings and on an | B | 2 | M | S | 4 | A | 1 |

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|---|---|---|---|---|---|---|---|---|---|
| | from 2 to 4 due to review and assessment of control adequacy. Control mechanisms are sufficient and adequately address requirements. | ongoing basis, a combination of EMPAC data, DCS data, operating procedures and plant knowledge and history are utilised to risk rate and prioritise operating tasks. | | | | | | | |
| 5.3 | Ref doc – 13 & 17 | All assets including their maintenance history and schedules are recorded within the EMPAC system database, as are the costing details for plant maintenance. Plant performance data is recorded within the data acquisition system of the plant DCS. | C | 2 | M | S | 4 | A | 1 |
| 5.4 | Ref doc – 1, 2, 3, 4, 5, 6 , 7, 21 & 22 | Operational budgets (operations & maintenance) are set annually and form part of the annual business planning process. Operational costs are monitored and reported regularly via the monthly reports. Deviations from budget are reported and investigated. | B | 1 | L | S | 5 | A | 1 |
| 5.5 | Ref doc - 10, 15, 16, 19 &20 | Staff training is planned and reported, a training matrix exists to ensure staff receive the correct training. Ongoing training is planned and | B | 2 | M | S | 4 | A | 1 |

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| | | monitored; the SafetyTV system was observed which clearly documented the training requirements (2010) and current progress. | | | | | | | |

| **Comments & Recommendations** |
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| Nil |

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| 6 | **Key process - Asset maintenance**<br>*Maintenance functions relate to the upkeep of assets and directly affect service levels and costs.*<br><br>**Outcome**<br>*Maintenance plans cover the scheduling and resourcing of the maintenance tasks so that work can be done on time and on cost.* | **Asset management process and policy definition adequacy rating**<br><br>**A** | **Asset management performance rating**<br><br>**1** |
| **Interviewees:**<br>Mark Jameson – Operations and Maintenance Supervisor<br>Ken Ferguson – HSEQ Compliance Advisor<br>Andrew Usher – Plant Engineer | | **Relevant documentation:**<br>**1. Maintenance Policy KCP-02 & Maintenance Management Procedure KCP-02-01**<br>**2. Maintenance Planning Procedure KCP-02-02**<br>**3. EMPAC Asset Management & Maintenance software**<br>**4. Kwinana Cogeneration Project Business Plan 2009 - 13**<br>**5. Kwinana Cogeneration Project Business Plan 2010 - 14**<br>**6. Kwinana Cogeneration Plant Monthly Report Sept 2008**<br>**7. Kwinana Cogeneration Plant Monthly Report June 2009**<br>**8. Kwinana Cogeneration Plant monthly Report February 2010**<br>**9. Australian Regional Review – Business Plan 2010 - 2014 Asset Overview**<br>**10. Black & Vetch (OEM) Operations & Maintenance Manuals**<br>**11. Whole of Plant Risk assessment for Kwinana Cogeneration Plant (spreadsheet)**<br>**12. Kwinana Risk Survey Report Update 03.09 Version 1 (Marsh Report)**<br>**13. Weekly Toolbox Meeting minutes**<br>**14. Kwinana Maintenance Prediction -2010** | |

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|---|---|---|---|---|---|---|---|---|---|
| | | | **15. Verve Contract – Supply of Electricity Part 3 Section 8 in Power purchase Agreement**<br>**16. BP Contract – BP Energy and Services Agreement – Supply of Electricity**<br>**17. Kwinana Operations and Maintenance Agreement – Kwinana Power Partnership**<br>**18. Work orders scheduled (PM & unplanned) W/E 19/07/10**<br>**19. Overdue PM work orders YTD 12/07/10**<br>**20. Non-conformance and Corrective and Preventative Action Procedure KCP-07-07**<br>**21. Abnormal Occurrence Report KCP-03-40**<br>**22. 6 May 2010 Kwinana Bearing No 2 Failure (update as at 8 June 2010)**<br>**23. Minutes of Management Meeting 25 May 2009**<br>**24. Minutes of Management Meeting 10 February 2010** | | | | | | |
| **Criteria Effectiveness** | | | **Post Review Audit Priority** | | | | | | |
| | **Policy** | **Performance** | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** | **Adequacy Rating** | **Performance Rating** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | | | |
| 6.1 | Ref docs – 1, 2, 3, 4, 5, 9, 14, 15, 16 , 17, 23 & 24 | Maintenance plans, policy and procedures are well documented and regularly reviewed as part of the annual business planning process and reflect the service levels | B | 2 | M | S | 4 | A | 1 |

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| | | required by the stakeholders. | | | | | | | |
| 6.2 | Ref docs – 3, 4, 5, 14, 23 & 24 | Plant inspections are carried out on a regular basis, major inspections are included in the business planning process and documented within the plan and maintenance prediction spreadsheet. EMPAC is utilised to ensure inspections are programmed and carried out on time. Asset performance is monitored and reviewed utilising data acquired through the DCS and condition monitoring routines. | B | 2 | M | S | 4 | A | 1 |
| 6.3 | Ref docs – 1, 2, 3, 4, 5, 6, 7, 8 ,18 , 19, 23 & 24 | Major maintenance plans are included in the business planning process and documented within the plan and the maintenance prediction spreadsheet. EMPAC is used to ensure maintenance is planned and carried out on time, exceptions are reported and monitored and the plans modified as required, overdue work orders are reviewed and | B | 2 | M | S | 4 | A | 1 |

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| | | followed up as required. | | | | | | | |
| 6.4 | Ref doc s – 6, 7, 8, 20, 21 & 22<br><br>Note: Audit Priority changed from 2 to 5 due to review and assessment of control adequacy. Control mechanisms are sufficient and adequately address requirements. | Asset failures are analysed, reported and reviewed. Failures are reported in the monthly reports and discussed at toolbox meetings. Maintenance and/or operational plans are modified as required (eg bearing 2 failure 2010). | A | 2 | H | S | 2 | A | 1 |
| 6.5 | Ref docs – 3, 4, 5, 11, 12, 13 , 18, 23 & 24 | Maintenance tasks are prioritised during the annual planning process utilising the whole of plant risk assessments and survey and the plant history. Day to day maintenance tasks are programmed via EMPAC and prioritised at the toolbox meetings, a combination of EMPAC data, DCS data, operating procedures and plant knowledge and history are utilised to risk rate and prioritise maintenance tasks. | C | 2 | M | S | 4 | A | 1 |
| 6.6 | Ref docs – 3, 6, 7, 8 & 14 | Operational budgets (operations & maintenance) are set annually and form part of the annual business planning process. | C | 1 | L | S | 5 | A | 1 |

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| | | Maintenance costs are monitored and reported regularly via the monthly reports. Deviations from budget are reported and investigated. | | | | | | | |

| **Comments & Recommendations** |
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| Nil |

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| 7 | **Key process - Asset Management Information System (MIS)**<br>*An asset management information system is a combination of processes, data and software that support the asset management functions.* | **Asset management process and policy definition adequacy rating**<br><br>**A** | **Asset management performance rating**<br><br>**2** |
| | **Outcome**<br>*The asset management information system provides authorised, complete and accurate information for the day-to-date running of the asset management system. The focus of the review is the accuracy of performance information used by the licensee to monitor and report on service standards.* | | |
| **Interviewees:**<br>Mark Jameson – Operations and Maintenance Supervisor<br>Ken Ferguson – HSEQ Compliance Advisor<br>Andrew Usher – Plant Engineer | | **Relevant documentation:**<br>1. **EMPAC Asset Management and Maintenance Software**<br>2. **Foxboro DCS**<br>3. **IT Infrastructure Regular Maintenance Procedure KCP-05-20**<br>4. **LAN Administration Procedure KCP-05-15**<br>5. **Server Backup Management KCP-05-21**<br>6. **Training Procedure KCP-07-10**<br>7. **Logic modifications KCP-02-06**<br>8. **Corriolis RFG Calibration procedure KCP-02-10**<br>9. **Process Steam Flow Transmitter Calibration procedure KCP-02-11**<br>10. **DCS – Backing Up Workstation to Tape Procedures KCP-02-20/21/22**<br>11. **Site Security Procedure KCP-05-13**<br>12. **Kwinana Cogeneration Plant Monthly Report Sept 2008** | |

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| | | | **13. Kwinana Cogeneration Plant Monthly Report June 2009**<br>**14. Kwinana Cogeneration Plant monthly Report February 2010**<br>**15. Minutes of Management Meeting 25 May 2009**<br>**16. Minutes of Management Meeting 10 February 2010** | | | | | | |
| **Criteria Effectiveness** | | | **Post Review Audit Priority** | | | | | | |
| | **Policy** | **Performance** | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** | **Adequacy Rating** | **Performance Rating** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | | | |
| 7.1 | Ref docs – 1, 3, 4, 5, 10 | Asset information systems are well documented for users and IT administrators, EMPAC includes an on-line help system. There are documented procedures in place for the maintenance and back up of the data acquisition systems | B | 2 | M | S | 4 | A | 1 |
| 7.2 | Ref docs – 1, 2, 7, 8 & 9 | EMPAC access is limited to IPM staff and passwords are in place. Similarly access to the DCS and its data acquisition system is also controlled to ensure validity | C | 1 | L | S | 5 | A | 1 |

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| | | of data entry. | | | | | | | |
| 7.3 | Ref docs - 1, 2 & 4<br><br>Note: Audit Priority changed from 4 to 5 due to review and assessment of control adequacy. Control mechanisms are sufficient and adequately address requirements. | As above | C | 1 | L | S | 5 | A | 1 |
| 7.4 | Ref docs - 11 | The Kwinana site is relatively small and access is controlled via an electrically operated gate, only IPM staff receive swipe cards to gain access, all other visitors must contact the control room to gain access. The site is monitored by 8 CCTV cameras from the control room.<br>However, it was noted that once within the main administration building it was possible to enter the server and control room without swipe cards. | B | 2 | M | S | 4 | A | 2 |
| 7.5 | Ref docs – 5 & 10 | Procedures exist for the backing up of the data | B | 2 | M | S | 4 | A | 2 |

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| | Note: Audit Priority changed from 2 to 4 due to review and assessment of control adequacy. Control mechanisms are sufficient and adequately address requirements. | acquisition systems and DCS on site. Back- up tapes are sent off site for storage (excluding the DCS) on a weekly basis.<br>The DCS is backed up on a monthly basis on an EMPAC work order; the backup tapes are kept on site in the library.<br>Note: on the day of the audit the DCS backup was not located in the library as expected and initially could not be found but was relocated in the control room. | | | | | | | |
| 7.6 | Ref docs – 7, 8 & 9 | Monitoring of electrical output to both Verve and BP is by Western Power calibrated metering at the Mason Road switchyard, natural gas supply is monitored by the Dampier Bunbury Gas Pipeline metering RGF supply by BP metering and steam supply by NATA certified IPM meters. Metered items are checked by sending and receiving organisations. | B | 2 | M | S | 4 | A | 2 |

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| | | It was noted that in discussions with the Plant Engineer there was some concern about which location Western Power utilised for ambient air temp monitoring (used to calculate plant max capability) and whether that location would have a negative impact of the Kwinana plant capability | | | | | | | |
| 7.7 | Ref docs – 12, 13, 14, 15 & 16 | Management reports are regular and appear adequate and appropriate. | B | 2 | M | S | 4 | A | 2 |

| **Comments & Recommendations** |
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| Recommendation 2: The storage of DCS back-up tapes requires review; although the library is remote to the DCS servers a review of fire safety processes (i.e. fire doors left open) may be appropriate.<br>Recommendation 3: The issue with the ambient temperature monitoring should be resolved with Western Power to ensure KCP capability is not adversely affected. |

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| 8 | **Key Process - Risk Management**<br>*Risk management involves the identification of risks and their management within an acceptable level of risk.*<br><br>**Outcome**<br>*An effective risk management framework is applied to manage risks related to the maintenance of service standards* | **Asset management process and policy definition adequacy rating**<br><br>**A** | **Asset management performance rating**<br><br>**1** |
| **Interviewees:**<br>Mark Jameson – Operations and Maintenance Supervisor<br>Ken Ferguson – HSEQ Compliance Advisor<br>Andrew Usher – Plant Engineer | | **Relevant documentation:**<br>1. **Kwinana Cogeneration Project Business Plan 2009 - 13**<br>2. **Kwinana Cogeneration Project Business Plan 2010 - 14**<br>3. **Kwinana Cogeneration Plant Monthly Report Sept 2008**<br>4. **Kwinana Cogeneration Plant Monthly Report June 2009**<br>5. **Kwinana Cogeneration Plant monthly Report February 2010**<br>6. **Whole of Plant Risk assessment for Kwinana Cogeneration Plant (spreadsheet)**<br>7. **Kwinana Risk Survey Report Update 03.09 Version 1 (Marsh Report)**<br>8. **Australian Regional Review – Business Plan 2010 - 2014 Asset Overview – Perth Power Partnership**<br>9. **Minutes of Quarterly Compliance Meeting 3/4/09, 8/6/09, 29/9/09 & 15/4/10**<br>10. **2010 Internal Audit Schedule**<br>11. **SAI Triennial Audit Report 25/06/09**<br>12. **Register of Environmental aspects and Impacts 2009**<br>13. **Internal Management System Audits and Reviews procedure KCP-04-05**<br>14. **Preparation of Annual Business Plan KCP-05-02** | |

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| | | | **15. Minutes of Management Meeting 25 May 2009**<br>**16. Minutes of Management Meeting 10 February 2010**<br>**17. Perth Power Partnership Annual Report 2009**<br>**18. Kwinana Cogeneration Plant Annual Report 2009** | | | | | | |
| **Criteria Effectiveness** | | | **Post Review Audit Priority** | | | | | | |
| | **Policy** | **Performance** | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** | **Adequacy Rating** | **Performance Rating** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | | | |
| 8.1 | Ref docs – 1, 2, 10, 11, 12, 13, 14 & 15 | Risk management is an integral part of the business planning process at KCP. The plant has been certified by SAI Global during the Triennial audit conducted in 2009 as having an effective integrated management system compliant with OHS AS4801, Environment Management System ISO 14001 and Quality Management ISO 9001. | C | 2 | M | S | 4 | A | 1 |
| 8.2 | Ref docs - 3, 4, 5, 6, 7, 9 & 12<br><br>Note: Audit Priority changed | Risk are identified and documented, action plans are reviewed regularly at the Quarterly Compliance | C | 1 | L | S | 5 | A | 1 |

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| | from 4 to 5 due to review and assessment of control adequacy. Control mechanisms are sufficient and adequately address requirements. | Meetings. Incidents and abnormal events are reported regularly in the KCP monthly reports. | | | | | | | |
| 8.3 | Ref docs – 1, 2, 6, 7 & 9 | The probability and consequences of asset failure are reviewed with the risk register regularly updated and incorporated into the business plan. | C | 2 | M | S | 4 | A | 1 |

| **Comments & Recommendations** |
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| Nil |

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| 9 | **Key Process - Contingency Planning**<br>*Contingency plans document the steps to deal with the unexpected failure of an asset.*<br><br>**Outcome-**<br>*Contingency plans have been developed and tested to minimise any significant disruptions to service standards.* | **Asset management process and policy definition adequacy rating**<br><br>**A** | **Asset management performance rating**<br><br>**2** |
| **Interviewees:**<br>Mark Jameson – Operations and Maintenance Supervisor<br>Ken Ferguson – HSEQ Compliance Advisor<br>Andrew Usher – Plant Engineer | | **Relevant documentation:**<br>**1. Kwinana Cogeneration Project Business Plan 2009 - 13**<br>**2. Kwinana Cogeneration Project Business Plan 2010 - 14**<br>**3. Minutes of Management Meeting 10 February 2010**<br>**4. KCP Business Continuity Plan 2010 – Draft**<br>**5. Testing of Stand-by and Emergency Plan KCP-03-12**<br>**6. Emergency Operation – Loss of Station AC Electrical Supplies and Backup Diesel Generator Operations KCP-03-13**<br>**7. Emergency Operation – Loss of Water Supply KCP-03-15**<br>**8. Emergency operation – Systems Islanding KCP-03-16**<br>**9. Emergency Operation – Loss of Natural Gas Supply KCP-03-17**<br>**10. Emergency Operations – Protection Operations KCP-03-18**<br>**11. Emergency Response Plan KCP-08-02**<br>**12. KIMA Manual – KIMA 039**<br>**13. Minutes of Quarterly Compliance Meeting 3/4/09, 8/6/09, 29/9/09 & 15/4/10**<br>**14. Training matrix and reports**<br>**15. 2010 Internal Audit Schedule**<br>**16. Emergency Response Exercise 2009** | |

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| | | | **17. Emergency Response exercise 2010** | | | | | | |
| **Criteria Effectiveness** | | | **Post Review Audit Priority** | | | | | | |
| | **Policy** | **Performance** | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** | **Adequacy Rating** | **Performance Rating** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | | | |
| 9.1 | Ref doc – 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 & 17 | There are well developed plans for site emergency, incident and evacuation which are reviewed annually, updated accordingly, monitored and tested. Staff evacuation and plant/operation protections plans are also in place as part of the Kwinana Industrial zone. The original business Continuity Management Plan has been redrafted and is yet to be finalised. Contingency plans are well understood and documented in the EMPAC | B | 2 | M | S | 4 | A | 2 |

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| | | system. Currently the draft KCP Business Continuity Plan 2010 is in a draft format however it successfully captures Emergency Responses, Crisis Management and Business Recovery aspects of the plant. | | | | | | | |

| **Comments & Recommendations** |
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| Recommendation 4: KCP Business Continuity Plan 2010 – Draft to be finalised and implemented accordingly. |

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| 10 | **Key Process - Financial Planning**<br>*The financial planning component of the asset management plan brings together the financial elements of the service delivery to ensure its financial viability over the long term.*<br><br>**Outcome**<br>*A financial plan that is reliable and provides for long-term financial viability of services* | **Asset management process and policy definition adequacy rating**<br><br>**A** | **Asset management performance rating**<br><br>**1** |
| **Interviewees:**<br>Mark Jameson – Operations and Maintenance Supervisor<br>Andrew Usher – Plant Engineer<br>Lui Dinardo – Financial Controller | | **Relevant documentation:**<br>1. **Kwinana Cogeneration Project Business Plan 2009 - 13**<br>2. **Kwinana Cogeneration Project Business Plan 2010 - 14**<br>3. **Kwinana Cogeneration Plant Monthly Report Sept 2008**<br>4. **Kwinana Cogeneration Plant Monthly Report June 2009**<br>5. **Kwinana Cogeneration Plant monthly Report February 2010**<br>6. **Australian Regional Review – Business Plan 2010 - 2014 Asset Overview – Perth Power Partnership**<br>7. **Kwinana Operations and Maintenance Agreement – Kwinana Power Partnership**<br>8. **Preparation of Annual Business Plan KCP-05-02**<br>9. **Minutes of Management Meeting 25 May 2009**<br>10. **Minutes of Management Meeting 10 February 2010**<br>11. **Perth Power Partnership Meeting minutes – 10th March 2010**<br>12. **Perth Power Partnership Meeting minutes – 17th December 2009**<br>13. **Perth Power Partnership Meeting minutes – 13th May 2010**<br>14. **Perth Power Partnership Annual Report 2009** | |

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| | | | **15. Kwinana Cogeneration Plant Annual Report 2009**<br>**16. Review by Price Waterhouse Coopers: IPM Operations & Maintenance Kwinana Pty Ltd – Kwinana DSCR Review**<br>**17. Syndicated Project Facility Agreement 1995**<br>**18. 6th May 2010 Kwinana bearing No2 failure report update 8th June 2010**<br>**19. Purchase of Goods & Services Procedure KCP- 06-02**<br>**20. Kwinana 5 Year Maintenance Prediction -2010**<br>**21. Kwinana Cogeneration Plant 5 Year Capital Spares Purchases – 2010**<br>**22. Delegation of Authority for Assets and Business CEOS FPM/FP01**<br>**23. KCP Business Continuity Plan 2010 – Draft**<br>**24. GV Instructions 2010 Master.docx (2010 – 2021)**<br>**25. Kwinana GV 2010 Base Case (2010 – 2021)** | | | | | | |
| **Criteria Effectiveness** | | | **Post Review Audit Priority** | | | | | | |
| | **Policy** | **Performance** | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** | **Adequacy Rating** | **Performance Rating** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | | | |
| 10.1 | Ref docs – 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 19, 22 & 23 | Financial planning and plans are well defined, documented, monitored and corrective actions taken when identified. Every 6 months the financial plan is reviewed and | C | 1 | L | S | 5 | A | 1 |

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|---|---|---|---|---|---|---|---|---|---|
| | | projected extensively for the next 5 years. Financial position of the plant is monitored stringently on a monthly basis. | | | | | | | |
| 10.2 | Ref docs – 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17 & 18 | Project Facility Agreement clearly identifies the sources of funds. Operating and maintenance costs are funded from the revenue base. Major capital acquisitions and/or major projects can be justified internally, using retained earnings or alternatively via line of credit facility using the Project Facility Agreement. This was evidenced in the purchase of the rotor for Bearing No.2 failure. This facility is in place until July 2011. | C | 1 | L | S | 5 | A | 2 |
| 10.3 | Ref docs – 1, 2, 6, 7, 8, 11, 1, 13, 14, 15 & 16 | Annual reports contain financial statements of balance sheet, Income and Profit and Loss statements, inclusive of signed Independent Auditor's report and declaration. The monthly financial plan and report states the budget, actual and | C | 1 | L | S | 5 | A | 1 |

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| | | provides projection of revenue, costs and acquisitions on a rolling 24 month basis. | | | | | | | |
| 10.4 | Ref docs – 1, 2, 6, 7, 8, 11, 12, 13, 16, 20, 21, 24 & 25 | Financial procedures and plans are well documented and provide for revenue, operational costs and capital outlay for 5 years plus two. This is then utilised to update the financial model for Kwinana plant to 2021. | C | 1 | L | S | 5 | A | 1 |
| 10.5 | Ref docs – 1, 2, 6, 7, 8, 11, 12, 13, 16, 20, 21, 24 & 25 | See above comments | C | 1 | L | S | 5 | A | 1 |
| 10.6 | Ref docs – 3, 4, 5, 6, 9, 10, 11, 12, 13 & 14 | Revenue and costs are monitored on a monthly basis, both at management and board levels and corrective action implemented accordingly. | C | 1 | L | S | 5 | A | 1 |

**Comments & Recommendations**

Comments: The Syndicated Project Facility Agreement provided for and continues to provide for a secure line of credit, as a viable source of funds until July 2011. The use of this source of credit facility was evident in the purchase of a new rotor and refurbishment of the failure rotor of Bearing No. 2.
Recommendation 5: Perth Power Partnership must investigate financial credit line instrumentalities and implement accordingly such that it can be used as an alternate source of funds upon the expiration of the current agreement.

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| 11 | **Key Process - Capital Expenditure Planning**<br>*The capital expenditure plan provides a schedule of new works, rehabilitation and replacement works, together with estimated annual expenditure on each over the next five or more years.*<br>*Since capital investments tend to be large and lumpy, projections would normally be expected to cover at least 10 years, preferably longer. Projections over the next five years would usually be based on firm estimates.* | **Asset management process and policy definition adequacy rating**<br><br>**A** | **Asset management performance rating**<br><br>**1** |
| | **Outcome -**<br>*A capital expenditure plan that provides reliable forward estimates of capital expenditure and asset disposal income, supported by documentation of the reasons for the decisions and evaluation of alternatives and options.* | | |
| **Interviewees:**<br>Mark Jameson – Operations and Maintenance Supervisor<br>Andrew Usher – Plant Engineer<br>Lui Dinardo – Financial Controller | | **Relevant documentation:**<br>**1. Kwinana Cogeneration Project Business Plan 2009 - 13**<br>**2. Kwinana Cogeneration Project Business Plan 2010 - 14**<br>**3. Kwinana Cogeneration Plant Monthly Report Sept 2008**<br>**4. Kwinana Cogeneration Plant Monthly Report June 2009**<br>**5. Kwinana Cogeneration Plant monthly Report February 2010**<br>**6. Australian Regional Review – Business Plan 2010 - 2014 Asset Overview – Perth Power Partnership**<br>**7. Kwinana Operations and Maintenance Agreement – Kwinana Power Partnership**<br>**8. Preparation of Annual Business Plan KCP-05-02**<br>**9. Minutes of Management Meeting 25 May 2009**<br>**10. Minutes of Management Meeting 10 February 2010** | |

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| | **11. Perth Power Partnership Meeting minutes – 10th March 2010**<br>**12. Perth Power Partnership Meeting minutes – 17th December 2009**<br>**13. Perth Power Partnership Meeting minutes – 13th May 2010**<br>**14. Perth Power Partnership Annual Report 2009**<br>**15. Kwinana Cogeneration Plant Annual Report 2009**<br>**16. Review by Price Waterhouse Coopers: IPM Operations & Maintenance Kwinana Pty Ltd – Kwinana DSCR Review**<br>**17. Syndicated Project Facility Agreement 1995**<br>**18. 6th May 2010 Kwinana bearing No2 failure report update 8th June 2010**<br>**19. Purchase of Goods & Services Procedure KCP- 06-02**<br>**20. Kwinana Cogeneration Plant 5 Year Capital Spares Purchases – 2010**<br>**21. GV Instructions 2010 Master.docx (2010 – 2021)**<br>**22. Kwinana GV 2010 Base Case (2010 – 2021)**<br>**23. EMPAC asset management & maintenance software**<br>**24. Whole of Plant Risk Assessment for Kwinana Cogeneration Plant.** |

| **Criteria Effectiveness** | | | **Post Review Audit Priority** | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Policy** | **Performance** | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** | **Adequacy Rating** | **Performance Rating** |
| | | | A=likely<br>B=probable | 1=minor<br>2=moderate | L=low<br>M=medium | S=strong<br>M=moderate | | | |

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|---|---|---|---|---|---|---|---|---|---|
| | | | C=unlikely | 3=major | H=high | W=weak | | | |
| 11.1 | Ref docs – 1, 2, 6, 7, 8, 14, 15, 17, 18, 19, 20, 21 & 22 | Capital expenditure is well documented and integrated into business and budget plans. Capital Forecasts are conducted annually and projected out 5 yearly and up to 2021 and identify timing and responsibility of implementation. | C | 2 | M | S | 4 | A | 1 |
| 11.2 | Ref docs –1, 2, 6, 7, 8, 14, 15, 17, 18, 19, 20, 21, 22 & 23 | EMAPC is utilised as basis for capital justification. Capital acquisition procedures are well documented and plans detail reasoning, timing, costs and implementation responsibilities. | C | 2 | M | S | 4 | A | 1 |
| 11.3 | Ref docs – 1, 2, 6, 7, 8, 14, 15, 20, 21, 22, 23 & 24 | Capital acquisition /replenishment is defined using equipment manufacturer recommendations and condition monitoring regime within EMPAC. In addition, annually a risk assessment is carried on the entire plant to complement this process. | C | 2 | M | S | 4 | A | 1 |
| 11.4 | Ref docs – 3, 4, 5, 6, 9, 10, 11, 12 & 13 | A well documented and rigorous process is in place to | C | 2 | M | S | 4 | A | 1 |

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| | | ensure that capital expenditure occurs timely and on budget. | | | | | | | |

| **Comments & Recommendations** |
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| Nil |

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| 12 | **Key Process - Review of AMS**<br>*The asset management system is regularly reviewed and updated* | **Asset management process and policy definition adequacy rating**<br><br>**A** | **Asset management performance rating**<br><br>**1** |
| | **Outcome**<br>*Review of the Asset Management System to ensure the effectiveness of the integration of its components and their currency.* | | |
| **Interviewees:** | | **Relevant documentation:** | |
| | | **Post Review Audit Priority**<br>1. **Kwinana Cogeneration Project Business Plan 2009 - 13**<br>2. **Kwinana Cogeneration Project Business Plan 2010 - 14**<br>3. **Kwinana Cogeneration Plant Monthly Report Sept 2008**<br>4. **Kwinana Cogeneration Plant Monthly Report June 2009**<br>5. **Kwinana Cogeneration Plant monthly Report February 2010**<br>6. **Australian Regional Review – Business Plan 2010 - 2014 Asset Overview – Perth Power Partnership**<br>7. **Kwinana Operations and Maintenance Agreement – Kwinana Power Partnership**<br>8. **Preparation of Annual Business Plan KCP-05-02**<br>9. **Minutes of Management Meeting 25 May 2009**<br>10. **Minutes of Management Meeting 10 February 2010**<br>11. **Perth Power Partnership Meeting minutes – 10th March 2010**<br>12. **Perth Power Partnership Meeting minutes – 17th December 2009**<br>13. **Perth Power Partnership Meeting minutes – 13th May** | |

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|---|---|---|---|---|---|---|---|---|---|
| | | | **2010**<br>**14. Perth Power Partnership Annual Report 2009**<br>**15. Kwinana Cogeneration Plant Annual Report 2009**<br>**16. Review by Price Waterhouse Coopers: IPM Operations & Maintenance Kwinana Pty Ltd – Kwinana DSCR Review**<br>**17. SAI Triennial Audit Report 25/06/09**<br>**18. Kwinana Risk Survey Report Update 03.09 Version 1 (Marsh Report)** | | | | | | |
| **Criteria Effectiveness** | | | **Post Review Audit Priority** | | | | | | |
| | **Policy** | **Performance** | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** | **Adequacy rating** | **Performance Rating** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | | | |
| 12.1 | Ref doc – 1, 2, 3, 6, 8, 9, 10, 11, 12, 13, 14, 15<br><br>Note: Audit Priority changed from 4 to 5 due to review and assessment of control adequacy. Control mechanisms are sufficient and adequately address requirements. | Review processes are in place to ensure asset plans and systems are current. The annual planning process ensures that the asset plans are up to date and include a review of the long term asset management plan. Reporting requirements ensure that the plans and systems are reviewed on a monthly, quarterly and annual basis. Procedures are reviewed on a one, two and three year cycle | C | 1 | L | S | 5 | A | 1 |

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| | | as appropriate. | | | | | | | |
| 12.2 | Ref doc – 16, 17 & 18<br><br>Note: Audit Priority changed from 4 to 5 due to review and assessment of control adequacy. Control mechanisms are sufficient and adequately address requirements. | Internal and external review of the assets and management systems are regularly conducted. The plant has been certified by SAI Global during the Triennial audit conducted in 2009 as having an effective integrated management system compliant with OHS AS4801, Environment Management System ISO 14001 and Quality Management ISO 9001. Insurance reviews have been conducted regularly with the current review completed in 2009 | C | 1 | L | S | 5 | A | 1 |

| **Comments & Recommendations** |
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| Nil |

**Table 3.0 Effectiveness Criteria Pre- Audit Review**

| 1 | **Key Process - Asset Planning**<br>*Asset planning strategies are focused on meeting customer needs in the most effective and efficient manner (delivering the right service at the right price).* | | **Outcome**<br>*Integration of asset strategies into operational or business plans will establish a framework for existing and new assets to be effectively utilised and their service potential optimised.* | | | | |
|---|---|---|---|---|---|---|---|
| | Effectiveness Criteria | Inherent Risks ( No Controls) | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | |
| 1.1 | Planning process and objectives reflect the needs of all stakeholders and is integrated with business planning | Some stakeholder needs not addressed | C | 3 | H | S | 2 |
| 1.2 | Service levels are defined | Some service levels not defined | C | 1 | L | S | 5 |
| 1.3 | Non-asset options (e.g. demand management) are considered | Agreements in place with Verve & BP for consumption of resource, demand management not applicable to either customer | C | 1 | L | S | 5 |
| 1.4 | Lifecycle costs of owning and operating assets are assessed | Lifecycle costs larger than expected | C | 2 | M | S | 4 |
| 1.5 | Funding options are evaluated | Alternate funding cost less | B | 2 | M | S | 4 |
| 1.6 | Costs are justified and cost drivers identified | Costs are larger than expected | B | 2 | M | S | 4 |
| 1.7 | Likelihood and consequences of asset failure are predicted | Asset fail more often with severer consequences than expected | B | 2 | M | S | 4 |

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|---|---|---|---|---|---|---|---|
| 1.8 | Plans are regularly reviewed and updated | Plans do not reflect best practices | B | 2 | M | S | 4 |

| 2 | **Key Process - Asset creation/acquisition**<br>*Asset creation/acquisition means the provision or improvement of an asset where the outlay can be expected to provide benefits beyond the year of outlay.* | | **Outcome**<br>*A more economic, efficient and cost-effective asset acquisition framework which will reduce demand for new assets, lower service costs and improve service delivery.* | | | | |
|---|---|---|---|---|---|---|---|
| | Effectiveness Criteria | Inherent Risks ( No Controls) | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | |
| 2.1 | Full project evaluations are undertaken for new assets, including comparative assessment of non-asset solutions | Higher costs than necessary | B | 2 | M | S | 4 |
| 2.2 | Evaluations include all life-cycle costs | Higher costs than expected | C | 2 | M | S | 4 |
| 2.3 | Projects reflect sound engineering and business decisions | Projects cost more, do not meet their objectives or are unsafe to operate | B | 2 | M | S | 4 |
| 2.4 | Commissioning tests are documented and completed | Valuable information lost and asset does not operate correctly or safely | B | 2 | M | S | 4 |
| 2.5 | Ongoing legal/environmental/safety obligations of the asset owner are assigned and understood | Assets and practices do not meet current legislative requirements | B | 2 | M | S | 4 |

| 3 | **Key process - Asset disposal**<br>*Effective asset disposal frameworks incorporate consideration of alternatives for the disposal of surplus, obsolete, under-performing or unserviceable assets. Alternatives are evaluated in cost-benefit terms* | | **Outcome**<br>*Effective management of the disposal process will minimise holdings of surplus and under-performing assets and will lower service costs.* | | | | |
|---|---|---|---|---|---|---|---|
| | Effectiveness Criteria | Inherent Risks ( No Controls) | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | |
| 3.1 | Under-utilised and under-performing assets are identified as part of a regular systematic review process | Higher costs and lower service | C | 1 | L | S | 5 |
| 3.2 | The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken | The reasons for under-utilisation or poor performance are critically examined and corrective action or disposal undertaken | C | 1 | L | S | 5 |
| 3.3 | Disposal alternatives are evaluated | Disposal alternatives are evaluated | C | 1 | L | S | 5 |
| 3.4 | There is a replacement strategy for assets | There is a replacement strategy for assets | C | 1 | L | S | 5 |

| 4 | **Key Process - Environmental analysis**<br>*Environmental analysis examines the asset system environment and assesses all external factors affecting the asset system.* | | **Outcome**<br>*The asset management system regularly assesses external opportunities and threats and takes corrective action to maintain performance requirements.* | | | | |
|---|---|---|---|---|---|---|---|
| | Effectiveness Criteria | Inherent Risks ( No Controls) | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | |
| 4.1 | Opportunities and threats in the system environment are assessed | Failure to assess opportunities and threats in the system environment | B | 2 | M | S | 4 |
| 4.2 | Performance standards (availability of service, capacity, continuity, emergency response, etc) are measured and achieved | Failure to monitor performance standards | C | 1 | L | S | 5 |
| 4.3 | Compliance with statutory and regulatory requirements | Failure to comply with statutory and regulatory compliance | B | 3 | H | S | 2 |
| 4.4 | Achievement of customer service levels | Failure to achieve customer service levels | B | 2 | M | S | 4 |

| 5 | **Key Process - Asset operations**<br>*Operations functions relate to the day-to-day running of assets and directly affect service levels and costs.* | | **Outcome**<br>*Operations plans adequately document the processes and knowledge of staff in the operation of assets so that service levels can be consistently achieved.* | | | | |
|---|---|---|---|---|---|---|---|
| | Effectiveness Criteria | Inherent Risks ( No Controls) | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | |
| 5.1 | Operational policies and procedures are documented and linked to service levels required | Service levels not consistently achieved | B | 1 | L | S | 5 |
| 5.2 | Risk management is applied to prioritise operations tasks | Unimportant tasks performed before important tasks | A | 2 | H | S | 2 |
| 5.3 | Assets are documented in an Asset Register including asset type, location, material, plans of components, an assessment of assets' physical/structural condition and accounting data | Asset information missing and condition unknown | C | 2 | M | S | 4 |
| 5.4 | Operational costs are measured and monitored | Operational costs too high | B | 1 | L | S | 5 |
| 5.5 | Staff receive training commensurate with their responsibilities | Staff perform tasks for which they are not trained | B | 2 | M | S | 4 |

| 6 | **Key process - Asset maintenance**<br>*Maintenance functions relate to the upkeep of assets and directly affect service levels and costs.* | | **Outcome**<br>*Maintenance plans cover the scheduling and resourcing of the maintenance tasks so that work can be done on time and on cost.* | | | | |
|---|---|---|---|---|---|---|---|
| | Effectiveness Criteria | Inherent Risks ( No Controls) | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | |
| 6.1 | Maintenance policies and procedures are documented and linked to service levels required | Service levels not consistently achieved | B | 2 | M | S | 4 |
| 6.2 | Regular inspections are undertaken of asset performance and condition | Asset performance and condition unknown | B | 2 | M | S | 4 |
| 6.3 | Maintenance plans (emergency, corrective and preventative) are documented and completed on schedule | Maintenance tasks not done on time, in sequence or correctly | B | 2 | M | S | 4 |
| 6.4 | Failures are analysed and operational/maintenance plans adjusted where necessary | Failures are repeated | A | 2 | H | S | 2 |
| 6.5 | Risk management is applied to prioritise maintenance tasks | Unimportant tasks performed before important tasks | C | 2 | M | S | 5 |
| 6.6 | Maintenance costs are measured and monitored | Maintenance costs too high | C | 1 | L | S | 5 |

| 7 | **Key process - Asset Management Information System (MIS)**<br>*An asset management information system is a combination of processes, data and software that support the asset management functions.* | | **Outcome -**<br>*The asset management information system provides authorised, complete and accurate information for the day-to-date running of the asset management system. The focus of the review is the accuracy of performance information used by the licensee to monitor and report on service standards.* | | | | |
|---|---|---|---|---|---|---|---|
| | Effectiveness Criteria | Inherent Risks ( No Controls) | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | |
| 7.1 | Adequate system documentation for users and IT operators | Service levels not consistently achieved | B | 2 | M | M | 4 |
| 7.2 | Input controls include appropriate verification and validation of data entered into the system | Incorrect data entered into system | C | 1 | L | S | 5 |
| 7.3 | Logical security access controls appear adequate, such as passwords | Unauthorised access to system | C | 2 | M | S | 4 |
| 7.4 | Physical security access controls appear adequate | Unauthorised access to equipment | B | 2 | M | S | 4 |
| 7.5 | Data backup procedures appear adequate | Complete loss of data or very old data available after systems failure | B | 3 | H | M | 2 |
| 7.6 | Key computations related to licensee performance reporting are materially accurate | Service levels not consistently achieved | B | 2 | M | S | 4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 7.7 | Management reports appear adequate for the licensee to monitor licence obligations | Service levels not consistently achieved | B | 2 | M | S | 4 |

| 8 | **Key Process - Risk Management**<br>*Risk management involves the identification of risks and their management within an acceptable level of risk.* | | **Outcome**<br>*An effective risk management framework is applied to manage risks related to the maintenance of service standards* | | | | |
|---|---|---|---|---|---|---|---|
| | Effectiveness Criteria | Inherent Risks ( No Controls) | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | |
| 8.1 | Risk management policies and procedures exist and are being applied to minimise internal and external risks associated with the asset management system | Ineffective or misapplication of risk management procedures to asset management system | C | 2 | M | M | 4 |
| 8.2 | Risks are documented in a risk register and treatment plans are actioned and monitored | Failure to capture risks within risk register processes | B | 2 | M | M | 4 |
| 8.3 | The probability and consequences of asset failure are regularly assessed | Inadequate review of asset failures | C | 2 | M | M | 4 |

| 9 | **Key Process - Contingency Planning**<br>*Contingency plans document the steps to deal with the unexpected failure of an asset.* | | **Outcome-**<br>*Contingency plans have been developed and tested to minimise any significant disruptions to service standards.* | | | | |
|---|---|---|---|---|---|---|---|
| | Effectiveness Criteria | Inherent Risks ( No Controls) | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | |
| 9.1 | Contingency plans are documented, understood and tested to confirm their operability and to cover higher risks | Service levels worse than expected following failures | B | 2 | M | M | 4 |

| **10** | **Key Process - Financial Planning**<br>*The financial planning component of the asset management plan brings together the financial elements of the service delivery to ensure its financial viability over the long term.* | | **Outcome**<br>*A financial plan that is reliable and provides for long-term financial viability of services* | | | | |
|---|---|---|---|---|---|---|---|
| | Effectiveness Criteria | Inherent Risks ( No Controls) | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | |
| 10.1 | The financial plan states the financial objectives and strategies and actions to achieve the objectives | Financial objectives and strategies not documented appropriately in financial plan | C | 1 | L | M | 5 |
| 10.2 | The financial plan identifies the source of funds for capital expenditure and recurrent costs | Source of funds for Capital and Operational expenditures not identified or documented | C | 1 | L | M | 5 |
| 10.3 | The financial plan provides projections of operating statements (profit and loss) and statement of financial position (balance sheets) | Inadequate financial plan | C | 1 | L | M | 5 |
| 10.4 | The financial plan provide firm predictions on income for the next five years and reasonable indicative predictions beyond this period | Inadequate financial plan | C | 1 | L | M | 5 |
| 10.5 | The financial plan provides for the operations and maintenance, administration and capital expenditure requirements of the services | Inadequate financial plan | C | 1 | L | M | 5 |
| 10.6 | Significant variances in actual/budget income and expenses | Corrective action not taken when significant variances in | C | 1 | L | M | 5 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | are identified and corrective action taken where necessary | actual/budget income and expenses occurred | | | | | |
| **11** | **Key Process - Capital Expenditure Planning**<br>*The capital expenditure plan provides a schedule of new works, rehabilitation and replacement works, together with estimated annual expenditure on each over the next five or more years. Since capital investments tend to be large and lumpy, projections would normally be expected to cover at least 10 years, preferably longer. Projections over the next five years would usually be based on firm estimates.* | | **Outcome -**<br>*A capital expenditure plan that provides reliable forward estimates of capital expenditure and asset disposal income, supported by documentation of the reasons for the decisions and evaluation of alternatives and options.* | | | | |
| | Effectiveness Criteria | Inherent Risks ( No Controls) | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | |
| 11.1 | There is a capital expenditure plan that covers issues to be addressed, actions proposed, responsibilities and dates | Inadequate Capital Expenditure plan | C | 2 | M | M | 4 |
| 11.2 | The plan provide reasons for capital expenditure and timing of expenditure | Inadequate Capital Expenditure plan | C | 2 | M | M | 4 |
| 11.3 | The capital expenditure plan is consistent with the asset life and condition identified in the asset management plan | Inadequate Capital Expenditure plan | C | 2 | M | M | 4 |
| 11.4 | There is an adequate process to ensure that the capital expenditure plan is regularly updated and actioned | Inadequate Capital Expenditure processes to ensure update of plan | C | 2 | M | M | 4 |

| 12 | **Key Process - Review of AMS**<br>*The asset management system is regularly reviewed and updated* | | **Outcome**<br>*Review of the Asset Management System to ensure the effectiveness of the integration of its components and their currency.* | | | | |
|---|---|---|---|---|---|---|---|
| | Effectiveness Criteria | Inherent Risks ( No Controls) | **Likelihood** | **Consequence** | **Inherent Risk rating** | **Adequacy of existing controls** | **Review priority** |
| | | | A=likely<br>B=probable<br>C=unlikely | 1=minor<br>2=moderate<br>3=major | L=low<br>M=medium<br>H=high | S=strong<br>M=moderate<br>W=weak | |
| 12.1 | A review process is in place to ensure that the asset management plan and the asset management system described therein are kept current | Inadequate review processes for AMS | C | 2 | M | S | 4 |
| 12.2 | Independent reviews (e.g. internal audit) are performed of the asset management system | Inadequate review processes for AMS | C | 2 | M | S | 4 |